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BULLETIN

university of maryland school of medicine

EMPHASIS: FAMILY MEDICINE

522

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THE FAMILY MEDICINE PROGRAM

C. EARL HILL, M.D.

THE FORMATIVE YEARS

The specialty of Family Practice had its official origin February 8, 1969, and one year later the first annual certification examination in Family Practice was held throughout the country by the American Board of Family Practice for qualified individuals. The "Practice-Eligible" category now open to family physicians in practice will cease to exist in 1978. Following that date only those who have completed the approved three-year residency program will be able to sit for the American Board of Family Practice examination.

What constitutes the Specialty of Family Practice?

A family physician serves the public as a primary care physician; that is, he is available to patients as their first contact and way of entry into the health care system. Moreover, he accepts responsibility for not only his patient's total health care, but the health care of the entire family including in that care the judicious use of consultants so that total health care is delivered in a continuing, comprehensive and coordinated fashion.

It is important to note here that the American Board of Family Practice is made up of 15 members, five of whom are selected from nominees recommended by the American Academy of Family Physicians, five from nominees advanced by the section on General/Family Practice of the American Medical Association and five nominees, one chosen from each of the five specialty boards of Internal Medicine, Surgery, Pediatrics, Psychiatry/Neurology and Obstetrics/Gynecology.

Various figures have been put forth to establish the optimal physician-patient ratio in a given community. A somewhat liberal figure of one per 2500 has been advanced as the balance necessary to provide optimal health care in a community. The estimated deficit in Maryland for family physicians has been put at 589 to 987 depending upon the study.^{1,2,3}

Recognizing the need to be involved in the education and provision of more family physicians for the State of Maryland, the University of Maryland, through its School of Medicine and its hospital with assistance from the Maryland Academy of Family Physicians, moved to establish a family practice residency program in 1969. This program was directed by Dr. William L. Stewart until July



Dr. Edward J. Kowalewski has directed the Program since January 1972.

1971, when Dr. William T. Layman began to serve as Interim Director. In January 1972, Dr. Edward J. Kowalewski, a Past President of the American Academy of Family Physicians, took the position as Professor and Head of the Family Medicine Program. Under his leadership and direction, the program has progressed and has been accorded full departmental status in the school and hospital.

THREE INGREDIENTS

It was recognized from the outset that there were needed three primary ingredients for a successful program: appropriate facilities, good residents and quality faculty/models.

The first of these requisites evolved from the old Evaluation Clinic housed in the Outpatient Department of the hospital (original hospital at the southwest corner of Lombard and Greene Streets). It was in this area that the first family practice residents embarked upon their training in the ambulatory care aspects of family practice.

As to the matter of residents, we have been fortunate in attracting many outstanding individuals who have been highly motivated to pursue a career in family practice. They have come to us from various and diverse backgrounds, but all share a common thread of interest, that of providing total, comprehensive care to families. We have been able to build a rather complete and successful educational experience for these resident physicians.

Each of the program directors have been successful in their attempts to attract qualified and interested educators from the ranks of practicing family physicians throughout the state, as well as consultants representing other specialties, all of whom have made great contributions to the educational program in this department.

Overall, there are four phases to be recognized in the Family Medicine Program at the University of Maryland Hospital: the graduate program or residency training phase; the undergraduate program (involving the medical student); a very active continuing education program (also known as post-graduate training); and, very importantly, a program of community service.

GRADUATE EDUCATION

The main thrust of our efforts has been, and continues to be, the residency training program directed by Associate Professor Leroy T. Davis, M.D. Our objective is to enable each of the residents to secure the highest quality training which will adequately prepare them for the delivery of the highest quality of care to those families to whom they are obligated. In order to do this, there had to be developed in the program a core curriculum which was consistent with the recommendations of the Residency Review Committee of the American Medical Association. Full approval of the program and its curriculum was granted by this committee in 1973.

A substantial portion of the curriculum consists of months spent participating on service in various other specialties such as Internal Medicine, Pediatrics, Obstetrics and Gynecology, Psychiatry and Surgery.

The first year includes five months spent in the specialty of Internal Medicine; two months in Pediatrics; one month each in Obstetrics and Gynecology; one month, Surgery; one month, Emergency Room; and one month with the Family Practice In-Patient Service.

During the second year, the residents will spend two more months each with Internal Medicine and Pediatrics, followed by a one month Geriatric ex-

tended care facility experience, two months in providing supervised Psychiatric care to ambulatory patients, another month each in the Family Health Center (our Model Family Practice Unit), in the Family Practice In-Patient Service, and in an elective. The final two months will be spent in a supervised practice experience. The third year is utilized by the resident to spend a greater amount of time in the Family Health Center with ever-increasing responsibility for care of a growing panel of ambulatory patients. Additionally, the resident is given more experience on the Family Practice In-Patient Service. Electives will encompass a substantial part of this third year being utilized by the residents to augment their educational experience.

The Family Medicine Program's active In-Patient Service has recently begun to accept referrals from practitioners around the state who offer us interesting teaching cases. The residents and faculty alike are extremely grateful to those physicians who have unselfishly contributed to the education of our residents in this manner.

The care of ambulatory patients has been carried out, for the most part, in our Model Family Practice Unit which now occupies a substantial portion of the first floor of the new North Wing of the University of Maryland Hospital. It is in this setting that the residents spend increasing amounts of time over their three-year training program ministering to the needs of their panel of families. Every attempt is made to provide each resident with a good cross-section of families as well as problems which these families present. In this area, attendings come from various disciplines such as Family Medicine, Internal Medicine, Pediatrics, Psychiatry, Orthopedics, etc., allowing the residents the advantage of a consultation in the context of the ambulatory setting.

One of the most valuable experiences, as assessed by the residents and faculty alike, has been participation in the Supervised Practice Experience. This phase of the training program consumes seven to eight weeks full-time, or three months part-time depending on the location of the practice, and usually occurs late in the second year or very early in the third year of the resident's training. In this portion of the curriculum, the residents are sent to participate with a practicing family physician in the care of his patients. This is not to be confused with a locum tenens in which case the visiting physician replaces, temporarily, the local physician; however, we emphasize the word "supervised" because the family physician is entering into a preceptor-preceptee relationship with one of the program's residents. Various

members of the faculty take steps to assure themselves of the quality of practice of the participating family physician before the resident is permitted to enter this phase of his/her training. Each resident must participate in this aspect of the curriculum and every attempt is made to locate a practice which is either in the general area where the resident hopes to ultimately establish his/her practice, or in a location which typifies the area in which the resident hopes to eventually practice.

This latter aspect is extremely important if this Program is to have any effect on the distribution of family physicians throughout this state. Residents have, time and again, advised us that they wish to practice in an area in which they are needed. More importantly, they want to be able to realize a happy and full life for themselves and, where applicable, their families, taking into consideration the ability to pursue intellectual activities, the availability of some leisure time and good educational opportunities for themselves and their families as well. The faculty of the Program realizes that if a person is happy where they live and work, they will, in all likelihood, remain in that area. It is one thing to distribute the physicians and quite another to maintain them where they are needed. This latter point requires far more planning; and although the results of our efforts in this phase will not be available for many years to come, we feel our attention is focused in the proper direction.

Another important phase of the training program as seen by the residents, and also appreciated by the faculty, is carefully selected elec-

tives. Although one or two months of electives are permitted in the second year of the curriculum, these are carefully screened by the faculty with the major number of electives occurring in the third year. The majority of the electives occur, by design, in the third year so that the resident upon completion of the Supervised Practice Experience can wisely choose the elective in order to augment any deficiencies or, perhaps, meet a specific need which exists in the community in which he/she will ultimately practice. We like to think of this aspect of the training program as a positive feedback system because the reality of practice, as it exists, has been vividly demonstrated to them during this experience.

The ever increasing number of residency positions allocated to the Program by the University has put a strain on the facilities available for training these residents at the University of Maryland Hospital. Other sites for fulfilling the educational requirements of the residents were sought in various community hospitals in the metropolitan areas of Baltimore and the District of Columbia. One of the first sites of "expansion" was at the Loch Raven Veterans' Administration Hospital in Baltimore. With the full cooperation of Drs. Morton Rapoport and Herbert Kushner, experience on the Internal Medicine floors was provided the residents of our program. Subsequently, we have also been assisted in the surgical aspects of training by Dr. Richard Kieffer, Jr. Under the very able guidance of these leaders, the training of our residents has proceeded in a most rewarding fashion.

Mercy Hospital's Dr. Joseph Mead was very receptive when we requested some time for the training of our residents from his Internal Medicine Department. This arrangement has been found to be most agreeable by our department and the experience has been highly rated by the residents who have participated. Another hospital which has participated and has made available to our residents some training time in the specialties of Internal Medicine and Surgery is Maryland General Hospital. Under the leadership of Drs. Donald T. Lewers and Carmen Fratto in the Department of Internal Medicine and Dr. Francis (Pat) Clark in the Department of Surgery, our residents have been able to expand their base of knowledge in these two departments.

Dr. John Mulholland, at the Union Memorial Hospital in Baltimore, has provided the residents of our program some outstanding experience in Internal Medicine at his hospital. His training program and hospital were very highly recommended by one of our faculty, Dr. Donald M. Pachuta, and the experience which has been



Residents see patients from their panel in the Model Family Practice Unit.

gained by our residents has been rated by them to be superb. Dr. Mulholland's Internal Medicine program is a balanced program which offers a broad educational exposure.

As of January 1975, our program began an association with St. Agnes Hospital through the cooperation of Dr. Emidio Bianco, their Director of Medical Education. He has acted as intermediary with the various department heads at St. Agnes Hospital to enable us to secure some training for our residents at that community hospital. We feel that that hospital, as do other community hospitals, offers a very desirable socio-economic cross-section of the patient population representative of the city and surrounding counties, and we anticipate that our residents will have a very good experience at this southwest Baltimore hospital.

We anticipate that as of July 1975, we will be able to train a small number of our residents at Suburban Hospital in Bethesda, Maryland. We feel that a program which represents the University of Maryland, and, through the University the entire state of Maryland, should have a wider base than that of the Baltimore metropolitan area. We look forward to the Suburban Hospital experience and trust that our residents will gain from the exposure to yet another community.

We are very much indebted to the physicians and administrators of these fine community hospitals who have opened the doors of their institutions to our residents in order to assist us in providing more family physicians for the State of Maryland. We hope that this association with these hospitals will continue to the mutual benefit of all parties concerned.

Our residents' experience in the care of the chronically ill and the elderly has been provided by an association with the John L. Deaton Medical Center in South Baltimore which association has existed since that facility first opened its doors to the public. Here the residents have certain patients assigned for whose care they are responsible as they would be in a practice in a community. During their month on-service at this fine institution, they serve as a physician "in-residence" becoming involved in the day-to-day problems which arise. This aspect of the residents' training is designed to permit them a better insight into the special problems so characteristic of this group of people.

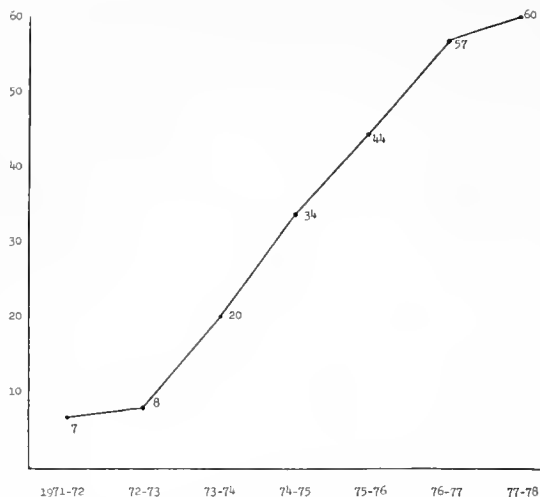
A very important aspect of any training program is the faculty, both in numbers and in quality. From the very outset of the effort, interested and dedicated individuals have led the program through its very trying times of rapid growth. Just as accelerated growth in a child can lead to that



Consultants are available to assist the residents in the delivery of care to their patients.

child being, at times, very awkward and disoriented, so too can training programs which expand as rapidly as the Family Medicine Program at the University of Maryland Hospital has done. Under the very capable leadership of Drs. Stewart, Layman and Kowalewski, the Family Medicine Program has grown in a very orderly fashion. Their guidance has provided a sound core curriculum, established associations with various other hospitals, introduced the family physician to the University of Maryland Hospital (and vice-versa), established continuing education programs, provided educational opportunities for medical students and added to the growth of the University of Maryland Hospital. These people have seen fit to collect a core of interested and dedicated faculty all of whom have experienced active family practice. Additionally, two new members of the faculty have been selected from the roster of recent graduates of the residency training program. Added to this has been a very helpful and dedicated staff of consultants from various specialties within the hospital as well as the surrounding state. Each of these faculty members has constituted a vital ingredient in the orderly growth and expansion of this Program.

The original design of residency training called for 18 residents with six at each level. This figure was expanded to a projected figure of nine at each level in the summer of 1973. Early in 1974, we were advised by Dean John M. Dennis of the School of Medicine that Chancellor Albin O. Kuhn had authorized expansion of the Family Medicine Pro-



Number of residents in Family Practice Training Program.

gram to train 20 residents at each level to be reached over a three year period. A frenzy of activity ensued and the long list of qualified and highly rated applicants was scoured to secure this authorized expansion. This list consisted of 72 applicants, a number which continues to increase in a gratifying fashion (113 through November 1974). The graph (figure 1) illustrates the past and current status of the size of the residency training program as well as the projected figures of allowed numbers of residents which the program can expect. This rapid growth set forth a challenge which has been met by the faculty, staff, residents and the participating programs both at the University and the surrounding community hospitals. Most importantly, the University of Maryland has seen fit to provide us with adequate funding which has been in part augmented by a National Institutes of Health Training Grant.

A critical aspect of any training program is the evaluation of the various facets of that educational endeavor. This vital phase is supervised by faculty member, Dr. Joseph B. Bronushas. In our Program we depend very heavily upon the faculty, consultants and our extended faculty—the staff of our associated hospitals—for the information regarding the performance of our residents in these respective areas. We realize that it is vital that a family practice resident rotating through an Internal Medicine service should be able to perform according to the standards established by the head of that department. These evaluations permit us not only to assess the effectiveness of the training in a given area but also give us very valuable feedback which affords us the opportunity to

adjust the learning experience of the resident by recommending certain electives to strengthen the areas of discovered weakness. The residents rotating through the Family Practice In-Patient Service are evaluated very thoroughly by the attending physician while the performance of the residents within the Model Family Practice Unit is evaluated through audit of the typewritten medical records (which are retained in the area) as well as videotaped resident-patient interviews and physical examinations. Additionally, the attendings in the unit give an assessment of performance of the resident with attention to clinical capabilities, professional bearing and attitudes. No effort at evaluation is complete without an assessment of the faculty and the program as a whole. To this end, periodic meetings and conferences are held to permit appropriate adjustments to the core curriculum and electives so that the Family Medicine Program might continue to have orderly and successful growth.

UNDERGRADUATE EDUCATION

The undergraduate training involvement of the Family Medicine Program is very logical if one considers that in order to produce more highly motivated and dedicated family physicians for this state, one has to gain the interest of people before they become physicians. The earlier that this interest can be imbued in the minds of young people, the easier it is to reinforce this inclination. With an adequate number of medical students predisposed to the delivery of primary and secondary care to families, there is a much larger pool of students from which to select family practice residents.

This should not be construed to be the only motive by which we participate in the education of medical students in an ambulatory setting. Rather, we see our interaction with medical students as having several objectives: 1) exposure to the delivery of quality care in an ambulatory setting with awareness of the total needs of the patient and the patient's family; 2) an opportunity to observe the practices of certain selected family physicians throughout the state; and 3) an opportunity for students who have selected another specialty to learn how to interact with family physicians and the patients of these residents and physicians thus allowing them to become more aware of the need to deliver total comprehensive care to families. Taken in proper context all of these objectives have equal importance. However, with respect to our interest in our own residency program, we are aware of the fact that a majority of these resident



physicians will ultimately practice in the same general area upon completion of their training. We, therefore, are particularly attentive to any medical student from this state who demonstrates a high degree of interest in family practice.

One of the means of providing the medical students an educational experience in Family Medicine is through the ambulatory services rotation which occurs for approximately six weeks during the medical student's senior year. During this period of time the student works in the Model Family Practice Unit where he/she receives patients from the screening area of the hospital for work-up and disposition. We make every attempt to stress the art of Medicine as well as the science thereof with special attention to the social aspects of Medicine, awareness of the economic situation of the patient and the need to produce a composite picture of the patient which is as complete as is practical. We attempt to round out their exposure to ambulatory care by providing students some experience in such settings as the provision of care to medically handicapped and to unwed mothers as well as exposure to a clinical pharmacist, our family counselor (social worker) and a clinical nutritionist.

We also offer to students at all levels elective experience in family practice some of which are available in the Model Family Practice Unit while others are attainable in the practices of family



Special treatment rooms are available in the Model Family Practice Unit.

physicians throughout the state. These educational offerings occupy a period of one month or longer. The students have found these experiences to be very informative and rewarding, increasing their scope of knowledge concerning the total care of the ambulatory patient.

More than two years ago application was made to the National Institutes of Health requesting financial backing for a preceptorship program within our department. This grant was forthcoming, and Dr. J. Roy Guyther was able to place over 20 students with preceptors in various communities during the spring of the past two years and 74 during each of the last two summers. It was gratifying to see approximately 100 preceptor physicians volunteer to participate in this very important educational process for the medical student. Although the majority of preceptors were family physicians and general practitioners around the state, the specialties of Internal Medicine and Pediatrics were represented, and their participation was greatly appreciated. Every attempt was made to carefully match the likes, dislikes, personalities, etc. of the participants so that no impediment was placed in the way of the educational process. Each side of the relationship is asked to evaluate the other, and the results of this process are used to continuously update and improve this popular offering.

At the beginning of the 1975 academic year, this department proposes to initiate a Family Practice "track". The object of this track is to provide an intensive experience in family practice either for those individuals who have decided that family practice is the course in the field of Medicine which they wish to pursue, or for those who have a strong feeling and attraction for family practice and desire to strengthen their conviction by reinforcement through the exposure that it is anticipated this track will offer. This track is an elective which will cover the entire four-year period that the student is completing the medical curriculum.

This is not a track in the sense that it will shorten the length of time required for residency training; however, if such a track is successful, we anticipate that we might want to scrutinize this possibility more closely. Such a development could give some relief to the manpower shortage which now exists in the area of primary health care.

There is a great need for such a track in the specialty of family practice, and this department recognizes its responsibility not only to the people of Maryland but to other family practice programs across the country to try to develop a workable plan which will perhaps alleviate some of the health manpower shortage and better prepare the

family physician of tomorrow for his/her life's work. With the capable assistance of Dr. Murray Kappelman of the Office of Medical Education, this department has submitted a grant proposal to the Family Health Foundation of America requesting financial assistance to develop, implement and evaluate the effectiveness of this experimental track in family practice. Preliminary discussions have indicated that this proposal has been well received, and we are currently awaiting a final decision.

An extracurricular activity in which this department engages is the support of the Family Practice Club. This organization is student directed, and its officers select the topics and speakers for each of the four evening meetings held on campus during the academic year. Attendance has averaged in excess of 100 per meeting during the last two years. At these sessions medical students are able to meet family physicians who attend from various areas of the state. The physician often brings his/her spouse, and, by this intermingling of physicians and students, communication and closer relationship is encouraged.

CONTINUING EDUCATION

There are very few people who are more aware of the need for and the value of continuing education than members of the American Academy of Family Physicians. This organization, when founded in 1947, cited as one of its objectives the provision of quality continuing education courses to its members—continuing education being a vital requisite for reelection to membership every three years. It was this group's efforts in continuing education from which the Physician's Recognition Award of the American Medical Association evolved; recently, legislation was enacted in this state which requires the recertification every three years of all physicians licensed to practice. The American Board of Family Practice and the American Academy of Family Physicians with their requirements for recertification, and the status of a Fellow of the American Academy of Family Physicians all demand specific amounts of time spent in continuing education.

Our full-time faculty, being family physicians, has been ever cognizant of the demands for the continued education of the practicing physician. Very early we decided to provide substantial amounts of educational material to fulfill the need of these physicians throughout the state. Our response was to coordinate, with the assistance of the Office of Continuing Education of the University of Maryland, School of Medicine, offerings

specifically suited to and providing for the needs of more than 600 family physicians and general practitioners as well as other physicians in this state. Much thought has gone into planning programs that are timely, interesting, stimulating and of superior quality so as to guarantee success in attempting to fulfill our responsibility in this area. Each topic has been carefully selected with the "front-line" practitioner foremost in our mind.

As we developed a program, we addressed ourselves to the task of selecting those speakers best qualified to speak on each of the selected topics. We were rewarded by a warm, sincere response on the part of the faculty of the School of Medicine, as well as other schools here on campus, and by many specialists from other areas. The presentations by these individuals were well organized, of high quality, with many outstanding audiovisual aids, and, most importantly, an enthusiastic involvement by the representatives of the various specialties. Moreover, large numbers of practitioners from all sections of the state attended these informative meetings.



Visual and auditory screening are standard services.

Our presentations to date have amounted to approximately 30 hours of postgraduate education per year. This year, under the capable leadership of Dr. William C. Weintraub, we anticipate adding significantly to this total of time so that approximately double this amount of time will be available through this department for family physicians and others interested in continuing their education in the field of Medicine.

Our department has also participated with the Office of Continuing Medical Education in the Visiting Traineeship In-Service Program conducted here at the School of Medicine. We have presented educational offerings to individual physicians which are tailored to meet their specific needs by involving them in the activities of the Program in all of its many facets.

This department has also been involved in two

case presentations at the annual meeting of the Medical and Chirurgical Faculty in which patient care and management by a family physician in the University Hospital setting were explained. These presentations subsequently appeared in the Maryland State Medical Journal last year.⁴ This department will also be involved in the annual meeting of the Medical and Chirurgical Faculty in Baltimore this year by sponsoring one-half day of the meeting.

During the year just completed, we came to realize that there was a large amount of audiovisual software of a self-instructional type that could be of value to family physicians who were interested in additional resources in order to satisfy their continuing education requirements. Clearance was obtained, and we subsequently made available, on an appointment basis, a wealth of videotapes dealing with various subjects pertinent to family practice. We feel that these tapes when viewed here will permit the practicing physician the opportunity to visit our facilities at the University of Maryland Hospital, improve relations between the University Hospital and the practicing physicians in the surrounding communities, and assist these active people in their required continuing education.

COMMUNITY SERVICE

Since its inception the Family Health Center has enjoyed a steady growth. This has been achieved by augmenting, rather than replacing, the services of the many other departments within the University of Maryland Hospital complex, while serving as a very necessary Model Family Practice Unit for the training of residents as family physicians.

The location of this area is on the first floor of the new North Hospital wing and is geographically located in an excellent position to provide service to the community surrounding the hospital. In addition, many of the patients come from other areas of the city and surrounding counties because of their inability to secure a family physician for their families. We, of the Program, have dedicated ourselves to providing these families with total continuing health care from a single convenient source. The trend in recent years has been for people to avail themselves of fractionated, episodic and discontinuous care wherever it was available. We hope to be able to reverse this trend.

A spin-off of this community service has allowed us to collect new data and statistics involving patient care rendered in the Model Family Practice Unit by residents, students and faculty. We are currently computerizing certain important data



Education conducted at the bedside—an unaltered tradition.

and patient characteristics in an attempt to provide research in an area which has previously been inadequately studied. Every specialty has a responsibility to produce interesting and informative research material and family practice is no exception. We feel that patient care data and characteristics offer us this valuable avenue for dissemination of such information.

In the true spirit of the University concept, we are interested in promoting the idea of a health care team while, at the same time, attempting to improve the cooperation and relations with other schools on the Baltimore campus. We have encouraged and cooperated with the School of Nursing by providing an educational experience for the student nurses in the Model Family Practice Unit. Since the Unit is operated as a large group practice, the nursing students are able to witness patient care in a setting which is more representative of private practice than that of the "brown bench" clinic. This intermingling of nursing students, medical students, staff, personnel and patients in the Unit has permitted these young nurses to more closely study the interaction of various members of the health care team as they relate to their various roles in the delivery of health care. This program has been fortunate to be able to interact in this way with the School of Nursing by assisting them in meeting their own educational requirements.

Very early in the development of the Family Medicine Program, it was recognized that students, residents and faculty should have available for their benefit (more importantly, the benefit of the patient) the presence of a full-time family counselor (social worker). In this area the family counselor's primary objective is to educate residents and students by providing them with information regarding resources which they could utilize while attending to the social aspects of the

in-patient's health care problem. Secondly, the family counselor also functions in a limited number of cases by serving directly as the resource-finder for the patient and the patient's family. Mrs. Deirdre McGreehan fulfills this capacity and, in spite of a very full schedule, she has found time to organize and conduct an obesity clinic which regularly meets in the Family Health Center.

The role of the Family Counselor is different from that of the traditional medical social worker in that the family physician should maintain the primary relationship with the patient and the patient's family. It is, therefore, vitally important that the physician be aware of the community resources and their appropriate use and that he/she develop his/her own family counseling skills for use in practice. To aid the family physician in working out the various social and psychological problems within the family, Mrs. McGreehan has presented material on the concept of family dynamics, intimate behavior, approach to the chronically ill, death and dying, etc.

Through Mrs. McGreehan this department has cooperated with yet another school on the campus, the School of Social Work and Community Planning. From this school, graduate social work students have been able to fulfill some of their own educational requirements while providing some additional service to patients in this area. We welcome the continued relationship with this fine school, and we anticipate the use of more of these highly trained members of the health care team in the offices of family physicians in the near future.

Another group of ancillary health personnel with whom we have had some working relationship have been the physician's assistants. We have realized the importance of this member of the health care team in the future of Medicine in this country and have agreed to open our area to provide a precepteeship to student physician's assistants. Currently, we have an association with the George Washington University School of Medicine in Washington, D.C. in that we offer our area as an elective experience for their students. We realize this interrelationship between the physician's assistant and the resident family physician affords an opportunity for a relationship to begin and continue after formal training has terminated, and the young family physician's familiarization with the capabilities of a physician's assistant will be enhanced by this first-hand experience.

So very often the patient who is referred to a highly specialized center, such as the University of Maryland Hospital, is removed from their familiar

surroundings and from the care of a family or general physician by the referral for a more specialized care. Our program has been made aware of this problem from various sources and has attempted to improve relations with the practicing physician in the community of origin of the patient by offering our services as a surrogate family physician to whom the patient might relate in the absence of their own physician. We do this with an eye toward meeting the personal and emotional needs of these patients who have been removed from their environment.

Our very presence in the University of Maryland Hospital has provided other departments and specialties a model of family practice to which they can relate. Being family physicians, we have been aware of the fact that many of the residents trained in other specialties have had little opportunity for a close relationship with a family physician throughout their period of formal training. In the communities where they subsequently practice, they have occasionally met with some difficulties in relating to the family physician and general practitioner upon whom they often rely for referrals. Our residents working side-by-side with residents in other specialties have permitted a close relationship to be maintained. Perhaps this relationship will permit a better approach to the distribution of physician manpower in the various communities in the future by permitting the residents to choose those with whom they will associate in the future. More importantly, we are attempting to actively educate our residents (as well as passively educate the residents of other specialties) in the proper and ethical interrelationship of these members of the medical team so that they are better prepared for practice in the community at the end of their tenure as house officers.

We of the faculty, as well as the residents, have often been called or otherwise contacted requesting information concerning the appropriate referral of patients to various other services within the University of Maryland Hospital. We have been happy to offer our services and facilitate the process of channeling the patient to the correct area and, occasionally, the specific individual who will be able to render optimal care to the referring physician's patient. Personal knowledge as family physicians plus an awareness of the specific interests of various physicians on campus has permitted us the capability of interacting in this fashion.

Traditionally, the generalist has requested consultations of the physician who has limited his interest in practice to a narrower, more specialized aspect of the practice of Medicine.

However, we find that there now arises numerous occasions in which a physician engaged in another specialty has occasion to consult with a family physician concerning the care of one of his patients or concerning an aspect of that patient's care which involves the family. Our very presence in this area has permitted the other specialties an awareness of the importance and the interaction possible when a family physician sees to the multifaceted needs of a patient and his/her family. In a very similar way we are often called upon to see patients referred to us for health care by other physician specialists on campus. Occasionally, these patients are referred for their ambulatory care, but more often we are asked to see them in the true light of responding to virtually all of their health care needs.

The faculty of the Program is committed to rendering service to other areas. In particular, we want to respond to those people who have assisted us in the training of our own family practice residents. For such a reason we have responded to requests for service as attending physicians at the Loch Raven Veterans' Administration Hospital. This situation is stimulating to us as physician-faculty, and we hope that the residents rotating on the medical floors at that hospital can gain from our knowledge and experience.

Approximately one year ago we were requested to assist two community hospitals who were interested in either establishing a family practice residency program or in being associated with our program. One of these hospitals, Suburban Hospital in Bethesda, will shortly be receiving residents from our Program for a supervised rotation on their medical floors. This will be of service to that hospital, and, in exchange, educational opportunities and experiences will accrue to our residents.

At another suburban Washington hospital, Prince George's General Hospital in Cheverly, we were asked to render assistance in helping them establish a family practice residency. Our faculty did render this assistance, and beginning in July 1975, Prince George's General Hospital will be accepting their first family practice residents. We recognize our obligation to help ease the family physician shortage in the state and visualize this endeavor as another extension of the helping hand by the University of Maryland to the communities which it serves.

At the present time we are taking part in exploratory negotiations to attempt to establish another model family practice unit in an area removed from the University of Maryland Hospital. We feel the need for this in order to be able to

offer our residents a broader base of experience and exposure to a varied panel of patients more representative of the entire socio-economic strata. It is hoped that, eventually, these model family practice units will be available not only for service to those in need of family physicians, but also to extend the educational opportunities for the residents of our Program.

Several times each week we are called upon by representatives from various communities to assist them in obtaining a family physician for their area. Many have offered them no hope in the foreseeable future. In the name of this University we find it unconscionable to do the same. Meeting and hearing these people has helped make us personally aware of the dire need for family physicians in these many remote areas of the state. We have offered suggestions as to possible approaches to their problems; we look forward to the day when we can supply sufficient family physicians to meet their needs.

Another service which we have initiated within our Program has been the Newsletter of the Family Medicine Program. This is a quarterly publication which is written by members of the faculty and mailed to family and general physicians around the state. We make every attempt to keep interested persons informed of the activities and opportunities available here in the Program. We place great emphasis on improved relationship with the physicians rendering the majority of health care to ambulatory patients throughout the state.

We are proud of the contribution alumni have made to the success of the Family Medicine Program. We sincerely invite the participation of more members, for there is a wealth of knowledge and experience among the graduates of this fine institution which could benefit the residents of the Program as well as those of other departments.

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ED. NOTE: Dr. Hill is Assistant Professor of Family Medicine and Director of Undergraduate Training, University of Maryland School of Medicine.

Photos: Phil Szczepanski

ACTING DIRECTOR OF UNIVERSITY OF MARYLAND HOSPITAL APPOINTED



It is a delightful pleasure to announce that John David Young, Jr., M.D., Class of 1941, is the Acting Director of University of Maryland Hospital. Dr. Young brings to that office a distinguished medical and administrative background that is unsurpassable.

Dr. Young is not going to divest himself totally of his professional responsibilities. He will continue to play an active role in the Department of Urology and also continue a limited private practice. During his leadership as Professor and Head of the Division of Urology since 1955, an outstanding department with national recognition has developed.

Not the lesser of the "Young" family in its dedication to the University is his wife, "Dottie." She is a graduate of the Maryland General School of Nursing, Class of 1943. She has worked as a nurse in the Pediatric Department, on a part-time basis, during the time of a real crisis in staffing patterns, in addition to finding time to raise five delightful children. Recently, she was the Women's Auxiliary Board Chairman for the 1974 Paint and Powder Club Benefit, and, through her interest and enthusiasm, the Auxiliary Board received a check for \$15,000 from the Paint and Powder Club.

John's dedication to the University, his indefatigable energy, and his integrity are a source of pride to all his associates. John and Dorothy Young comprise a great team to give much-needed leadership to the Hospital community.

On behalf of the Alumni Association, sincere appreciation is expressed for this wise appointment.

MARYLAND'S MEDICAL SPIES*

Theodore E. Woodward, M. D.

Your gracious citation as "University of Maryland Alumni Awardee for 1974" is accepted with much pride and a sense of humility. Maryland has been my institution for many years and to have this expression of thanks means a great deal to me. In the next few minutes, I will present a glimpse of some of the historical storehouse of treasures of our school and hospital. Our medical heritage is to the practice of medicine in Baltimore and Maryland as the plant is to its blossom; it provides a picturesque setting and enables us to understand how the labors and obstacles of wise and honest predecessors made things better for us.

At the time of the centennial celebration of the University of Maryland School of Medicine in 1907, a long galaxy of brilliant physicians and surgeons were cited who had been associated with many important and singularly significant medical achievements. During the previous century, these men were instrumental in helping make the school and hospital at Lombard and Greene Streets an outstanding medical center in the United States.

Dr. Samuel Claggett Chew, Chairman of the Department of Medicine in the late nineteenth century, criticized most medical schools, including ours, whose students, with respect to chemistry, had never handled a test tube or a retort; as regards their physiology, had never seen the action of gastric juices, the pulsation of the heart, the circulation of the blood and the response of any nerve to a stimulus, as regards surgery, had never lanced an abscess, as regards medicine proper, had never heard a crepitant rale or listened to a cardiac murmur. Doctor Chew said, "Now all of this is changed, attendance upon the course of instruction is obligatory, laboratory work for chemistry and histology is required for all students, bedside instruction in surgery and medicine, clinical teaching, that is, in the true and liberal sense, is imparted to all. It is incredible that the former system could have been maintained for so long. Speaking in behalf of the University of Maryland, that condition of things will never be returned to." (Chew, *Medicine in the Nineteenth Century, Book on Addresses*, the Deutsch Company, 1906.) In his centennial address in 1907,

Chew said that as a medical man, he wished to be familiar with the History of Medicine from Hippocrates to Galen, from Galen to Versalius, from Versalius to Boerhaave, from Boerhaave to Harvey, from Harvey to Jenner and, thence, down to these daring days. In this address, he remarked that "the day is gone or rapidly passing when there is any immediate function for the old family physician or at least any other function than that of sitting in his office and directing his patients to the proper specialists." (Chew, S. C., *The Centennial Celebration of the Foundation of the University of Maryland, Medical, Volume II*. Williams and Wilkins, Baltimore, 1908.) Do these words sound familiar?

Later, Dr. Gordon Wilson, another of my predecessors to the Chair of Medicine, said, in 1924, that "medical education today is in a period of flux and one is not quite sure if the outcome will be satisfactory. One cause for unrest today is the failure to realize that the laboratory studies are confirmatory rather than diagnostic." Does this sound familiar?

My response to these two careful and objective comments will be positive. Now, in 1974, we are embroiled in lengthy definitions of differences between general practitioners, generalists, family physicians, primary care physicians, comprehensive physicians and internists. It is my hope that in the next decade, or less, it will be accepted that a physician is a physician and is one who cares for his patient and his problems and that the only difference between a family physician and an internist is not his competence or dedication, but rather the setting wherein he practices the art. Unless we recognize and seriously accept this concept and prepare for it now, it is inevitable that two distinct classes of physicians will evolve much to the detriment of American medicine. This does not preclude the concept that specialization within medicine is essential but not paramount.

Moreover, the physician must perform as a physician, first relate to his patients, must have a firm scientific base, order and utilize the results of laboratory tests and computer print-outs, as aids to him and not as substitutes for his efforts. Computers and auto-analyzers are man-made. Yet,

*Presented to the Medical Alumni Association, May 30, 1974, on the occasion of the Annual Meeting, Hilton Hotel, Baltimore, Maryland.

man has not perfected the making of a man. Data from a computer is no better than the man who feeds it. Within the same framework, the acceptance of a professional assistant, such as a nurse-practitioner or clinical pharmacist, used willingly as an associate will make the busy physician even more efficient. There are new and useful roles for various types of allied health professionals. We must focus our future goals aimed at development of better standards of education and practice, derived in part with the help of newer techniques and upon the concept that we serve the patient and not the group.

Medicine, medical education and medical practice are like locusts; they recur in undulating ways. Always, we should be mindful of our rich tradition and profit from the contributions and mistakes of the past, hold tenaciously to, and not cast aside that which is good, and not perpetuate the mediocre or inferior.

Let us now speak of some of the relatively unheralded contributions of the University of Maryland's microbe hunters whose feats have not been properly acknowledged in the Annals of American Medicine. When our medical school began taking form in the late eighteenth century, before its final inauguration in 1807, among the founders were John Beale Davidge and Nathaniel Potter, recognized medical authorities of the era. Davidge was the Professor of Anatomy and the new school's first Dean for whom our building is named, and Potter the first active incumbent of the Chair of Practice. Pestilential diseases ravaged the colonies and in Baltimore and some counties of Maryland, cholera, typhoid and yellow fever took heavy tolls during warm weather whereas smallpox struck at will and typhus fever during the winter. Stirring accounts of these outbreaks can be read in the Federal Gazette of Baltimore.

It is in the fight against yellow fever that Maryland physicians, Potter and Davidge particularly, made major significant contributions based upon their personal observations and courage to take positive stands on a controversial issue. Epidemics of yellow fever occurred in Baltimore in 1794, 1797, 1800, 1808 and in the years 1819 and 1829 with 1,200 reported cases and 300 deaths in the outbreak of 1820. Fells Point and Locust Point, key harbors of old Baltimore, frequently crept into the news as sites of yellow fever and cholera.

The great epidemic of yellow fever in Philadelphia occurred in 1793, when the leading colonial physician, Rush, sealed his immortality. Rush contended that the disease was contagious, that it arose locally and held to his firm belief "that all diseases arising from marsh miasmata were con-



Nathaniel Potter, M.D., Professor of Theory and Practice of Medicine.

tagious in a degree proportioned to their malignity and that an opposite doctrine was utterly untenable." Potter had been a private pupil of Rush's in 1793 and knew yellow fever. He studied patients in Baltimore and in Caroline County on the Eastern Shore. In order to prove his point of view of non-contagion, he conducted various studies on himself, such as applying a piece of muslin on the body of a man dying of yellow fever until it became saturated. He then bound this about his head at bedtime until seven in the morning. Later, he inoculated himself with "perspirable matter" from a patient in the last stages of yellow fever and another time with the purulent exudate aspirated from the buboe of a malignant case of the fever. Potter experienced no reactions from each of these experiences other than minor reactions at the sites of injection. Although these studies prove nothing, they suggest that Potter was immune to yellow fever by virtue of a prior attack and helped convince him of the non-contagious nature of the illness. One might question whether the patient with inguinal buboes truly had yellow fever but that is not central to the theme. As a corollary to Potter's studies, Stubbins Ffirth, a medical student at the University of Pennsylvania, made numerous attempts in 1802 and 1803 to infect himself, without success, by depositing fresh black vomit from patients into incisions made in his arms or legs, by swallowing fresh gastric contents or by inhaling heated fumes of such material. Presumably, this daring investigator had solid immunity acquired from a prior infection.

Twice, Potter wrote Rush, in October, 1793, and on 4 June 1797, to prevail upon him to abandon his view only to be rebuffed by the great Philadelphian. In his second letter, a masterpiece of rhetoric, Potter wrote: "With all possible deference to your superior judgment, I cannot prevail upon myself to believe that any fever, arising from vegetable decomposition is contagious." (Potter, Nathaniel: A Memoir on Contagion. Published by Edward J. Cole, Baltimore, 1819.) From the yellow fever in 1793, in Philadelphia, to that which occurred in Baltimore in 1797, the contagion of yellow fever was not questioned until Potter's learned colleague, Doctor Davidge, published a paper in the Federal Gazette of Baltimore on 30 November 1797, protesting the theory of contagion. Thus, Potter and Davidge challenged the great Rush and were right, although it took another century and two other Maryland graduates to help add the clinchers.

You have all heard of Walter Reed, James Carroll, Jesse Lazear and of Aristides Agramonte who constituted the Second Yellow Fever Commission to Cuba. Reed, Carroll and Lazear were all clearly linked with Baltimore and Maryland. You have not heard of Henry Rose Carter, of Virginia, who abandoned engineering for medicine and graduated from the University of Maryland in 1878



James Carroll, M.D., Member of the USA Yellow Fever Commission, from a photograph taken in 1901.

at the age of 26. He served as an intern at the University Hospital for a year, encountered leg troubles from an old injury and abandoned the practice of medicine for a career in the United States Public Health Service assigned to the Marine Quarantine Service in the Gulf of Mexico. He questioned the quarantine practices based on his twenty years of patient study of shipboard yellow fever and painstaking epidemiologic observations of two outbreaks of the disease in the small Mississippi towns of Orwood and Taylor. Carter noted that crews and passengers developed yellow fever soon after leaving a South American port. After an initial flurry of cases, there were none until two weeks or more later during the long cruise. The same phenomenon was noted in the two towns in that a period of time had to pass until contacts of an initial index case developed the bloody vomit. He concluded and published in 1900 that an external incubation period was required for the transmission of yellow fever from man to man. He also noted that quarantine and customs inspections officers who handled the clothing of yellow jack victims did not develop the disease which recalled Potter's and Davidge's rebuttal to Rush. Reed, in a letter to Carter in 1902, said, "You, Carter, must not forget that your work in Mississippi did more to impress me with the importance of an intermediate host than everything else put together." The initial trials of feeding mosquitoes on yellow fever victims with attempts to transmit the illness to volunteers failed. The Reed Commission succeeded only after they allowed a period of incubation of the agent to occur in the mosquito for about ten days. Carter supplied this clue.

Our final distinguished alumnus and contributor to this remarkable story of finding the means of transmission of yellow fever is James Carroll, a graduate of the Class of 1891. Carroll was a clinical bacteriologist who chose an army career. Reed selected him as Deputy Director of the Second Yellow Fever Commission which unraveled the mosquito puzzle in Cuba, a concept first proposed by Carlos Finlay in 1886. Carroll actually carried out the lion's share of the work under Reed's direction. Carroll was the first person to be experimentally infected by a purposely fed mosquito which he placed upon himself. He recovered after a serious attack although he died about seven years later of causes possibly attributable to yellow fever. Their associate, Jesse Lazear, contracted the disease accidentally and died several weeks after Carroll's recovery. Without Carroll's painstaking studies and dogged perseverance, including his courage to proceed with the use of volunteers in the face of criticism and official rebuke, it is conceivable that the Commission's



Henry Rose Carter, courtesy of the National Library of Medicine.

work may not have been fully successful. There were no deaths in their volunteers. You may be pleased to know that original letters between Reed and Carroll, and Carroll and his wife, Jennie, are in our possession and will rest in Davidge Hall.

Our two alumni, Carter and Carroll, were nominated for the Nobel Prize. Sir Ronald Ross, the Englishman and Nobel Laureate for his work which demonstrated the mosquito transmission of malaria, nominated Carter and Finlay for the coveted award in 1904. Carter nor Carroll won the latter-day renown that was to be Reed's, Finlay's and Lazear's. A total of three Maryland alumni have been nominated for the Nobel Prize in recognition of their work in infectious diseases.



Professor William Power, at the age of 20.

To continue our brief survey of Maryland medical spies who have joined the yellow parade, brief mention will be made of William Power, Chairman of the Department of Medicine from 1846 to 1852. He studied in Paris under Pierre Louis and intro-

duced the art of auscultation and percussion to Baltimore and to Maryland students. Power, an inspired teacher, died of tuberculosis at the age of 39.

Samuel Taylor Darling, another microbe hunter, graduated with honors in the Class of 1903, a classmate of Dr. Edgar Friedenwald. In Panama in 1905, he worked under the direction of Henry Rose Carter. Here he studied and discovered a new disease known for years as Darling's disease and now recognized as disseminated histoplasmosis. He became a close colleague of Carter and Gorgas and was known internationally as an authority in the field of parasitic diseases and preventive medicine.

It has been my purpose to pointedly bolster the ego of all alumni of the University of Maryland School of Medicine. During the third quarter of the twentieth century, its graduates include deans of several leading medical schools, a brand new dean with us this evening, Chairmen of the Departments of Medicine of Columbia College of Physicians and Surgeons, Washington University in St. Louis, Cornell Medical College and the University of Puerto Rico; Chairmanship in Surgery at the University of Georgia, to mention a few who have chosen academic careers and countless other graduates, themselves recognized as leading practitioners of the art. Alumni and faculty members have been chosen to serve on top governmental policy councils and elected to membership in the nation's leading medical and surgical societies where they have held high office.

Twilight years are here and retirement for me is on the horizon. With other clinical departments we are now engaged through the initiative and innovative help of several vigorous physicians and nurses in crystallizing the team approach to primary and continuing health care with proper stress upon its educational relevance. In this way, our school now can assume a major leadership role and help show the way to higher standards of health care in the last quarter of the twentieth century. With time permitting, it is also my hope to prepare for you a true and thorough chronicle of our rich heritage, much of which rests in the bud and awaits flowering.

Actually, this evening you have honored me for something that I have been paid to do and liked.

Ed. Note: Dr. Woodward is Professor and Head of the Dept. of Medicine, U. of Md. School of Medicine & Hospital.

Ed. Note: Photograph of Dr. Carter reprinted by permission from the National Library of Medicine and the New England Journal of Medicine, Vol. 277, p. 734, October 5, 1967.

BALTIMORE CAMPUS ALLIED HEALTH SCHOOLS

PROGRAM IN MEDICAL TECHNOLOGY UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE

Jason M. Masters, Ph.D.



The origin of Medical Technology can be traced to the fourteenth century when physicians made scientific and sometimes superstitious observations on body fluids. Modern Medical Technology, a dynamic and ever-changing science, deals with all phases of laboratory medicine. This includes an in-depth study

of such broad disciplines as Hematology, Immunohematology, Clinical Chemistry and Clinical Microbiology. Information provided by the Medical Technologist is essential to the physician in the detection, diagnosis, treatment, and prevention of disease.

The baccalaureate degree program in Medical Technology at the University of Maryland was instituted on the Baltimore campus in September 1970 with the admission of ten students to the senior year. Originally located on the first floor of the Computer Science Building, the program functioned with minimal facilities and faculty. The program moved to the first floor of the Allied Health Professions Building in 1972. Over a period of four years the increasing demand for qualified laboratory scientists has necessitated expansion to the present enrollment of forty-eight students.

Admission to the Medical Technology Program is highly competitive and is based on academic achievement during 90 semester hours of required pre-professional college course work. Academic preparation consists of extensive chemistry and biol-





ogy courses, as well as mathematics and general education requirements. Additional consideration is given to the Allied Health Professions Admission Test scores. Admission Committee decisions are made following a personal interview.

Flexibility is the keynote in the Medical Technology Program at the University of Maryland, as sophisticated procedures and advanced techniques are developed for use in the clinical laboratory. Therefore, faculty members, selected for their expertise in a particular specialty, are responsible for developing and up-dating courses. While these modifications reflect recent advances in laboratory medicine, the general structure of the program has remained the same since inception. Extensive lecture in theory, simulated laboratory instruction and practical clinical experience form the basis of the training. Simulated "pilot" laboratories, equipped with advanced instrumenta-

tion, plus a low student/teacher ratio, give the student an opportunity to develop and refine technical skills prior to the period of clinical practice. The last six months of the senior year are devoted to intensive practice in the University of Maryland Hospital Laboratories.

The Medical Technology Program is categorized as a university-integrated program and is approved by the Council on Medical Education of the American Medical Association. Graduates are certified to take the American Society for Clinical Pathology (ASCP) Registry examination for Medical Technologists.

Opportunities for Medical Technology graduates extend beyond the routine hospital laboratory to include such fields as research, education and industry.

In conjunction with the Department of Pathology Graduate Program, students may pursue advanced study in Medical Technology leading to a Master of Science degree. The primary objective of graduate study in this field is to prepare students for careers as educators, supervisors or researchers in specialized areas of laboratory medicine.

A proposal for future expansion is under consideration. This proposal would allow an increase in enrollment to 120 students within the next ten years. Considering the increased specialization and sophistication of laboratory medicine and modern concepts of total health care, medical technologists must be prepared to accept a challenging and expanded role in the future. The field of medical technology, endowed with all the past achievements, holds a bright and exciting future which promises to help explain many of the disease processes now in question.



Ed. Note: Dr. Masters is Program Director, Program in Medical Technology, University of Maryland School of Medicine.

PRESIDENT'S MESSAGE

Robert B. Goldstein, M.D.

During the past months while serving as your President of the Medical Alumni Association, I have become more cognizant of some of the problems and justified complaints expressed through correspondence directed to the Alumni office.

The confrontation of a problem which has concerned me greatly, as well as my predecessors, is the disappointment experienced by members of the Association whose qualified sons and daughters are denied admission to the School of Medicine.

The Admissions Committee, composed of members of the various departments of the Medical School and also represented by the Alumni Association, has been instructed by the Board of Regents to accept only a limited number of non-resident applicants for the Medical School each year. This policy is practiced by most state universities. Since this number is small, only the most qualified out-of-state students are accepted. Applicants of sons and daughters of the alumni are reviewed, but only those applicants who are competitive with other students are accepted.

Another situation which has come to my attention and causes much confusion is the solicitation of dues and donations made by other organizations throughout the University of Maryland.

By way of clarification, I would like to state that the only solicitation made by the Medical Alumni Association is the mailing of a dues notice at the beginning of the fiscal year which covers the period of July 1 through June 30. This is followed by a reminder in the form of a second dues notice mailed in October and, finally, a third notice mailed in February. Any solicitations received which do not bear the address of 522 W. Lombard Street, Baltimore, Maryland 21201, are not made by this Association, and no benefits are derived from such payments unless the check is made payable to the Medical Alumni Association. Further, we have no program which includes a "Life Membership" or other payment plans, only a request for the payment of dues, as stated above. The only exception to this statement has been

requests for donations for the restoration of Davidge Hall, in which case checks should be made payable to the Davidge Hall Restoration Fund.

The Medical Alumni Association is autonomous of any other alumni associations of the University of Maryland. The expenses incurred in the operation of the office, activities and the publication of the *Bulletin* are supported solely from annual dues receipts and donations made by the membership. I hope this explanation will answer any questions regarding solicitations; if not, please contact me.

While on the subject of dues, I would like to express my personal appreciation, and that of the Board of Directors, to those active members who faithfully pay their dues annually. To those of you who have recently renewed your membership; either in response to the letter sent by Dr. John F. Strahan, Treasurer, due to an address correction or simply renewed interest, I wish to especially thank you. If you are not an active member, won't you consider taking an interest in the support of your Association?

It is also astonishing that so few members notify the Alumni office of deaths of fellow alumni in their areas. This news travels fast in the Baltimore and Maryland areas, but it is very distressing to receive returned dues notices or other correspondence coldly marked "deceased" or "expired" from other parts of the country with no information or names of survivors. A letter of condolence is of little significance at such times, but I do endeavor to send an expression of sympathy if sufficient information is available. Won't you take a few minutes to send obituaries of alumni in your areas.

The Oyster Roast held on Friday, November 1, 1974 honoring the Junior Class was quite successful (as evidenced by the pictorial report appearing elsewhere in this issue), with 90 students and their guests attending, along with alumni and faculty members. Those of you in the Baltimore area who did not attend, missed an opportunity to meet and mingle with our future alumni whose eagerness and enthusiasm was most inspiring.

The Board of Directors was well represented at the Southern Medical Association Meeting in Atlanta on November 17-20, 1974. Dr. John F. Strahan, Treasurer; Dr. William J. R. Dunseath, Past President; and Board members Drs. James A. Roberts and Robert T. Singleton were on hand to

greet the alumni at a reception held on Monday evening, November 18. Much enthusiasm was generated for the Association and the School of Medicine at this reunion. Mrs. Jean D. Goral, Executive Administrator, registered alumni, faculty members and the 1976 Class Representative, William G. Brown.

The Southern Medical Association (comprised of 17 states) represents a small percentage of our alumni, and I would appreciate your suggestions as to other such organizational meetings where the membership would benefit by the participation of the Association.

In previous messages, I have stated that news of the progress of the Davidge Hall Restoration project would be forthcoming. It is regrettable, but due to a merger of the architectural firm of Kelly and Associates, it is necessary that a new contract be drawn up by the parent firm, Cochran, Stephenson and Donkervoep, Inc. Naturally, the legal entanglements have delayed the initial survey, but we hope the work will be well underway and evidence of the findings will be available by Alumni Day.

By this time, I am sure you are all aware that the dates for the Alumni Day program have been set for May 27 and 28, 1975, climaxed by the reception and Annual Banquet. The site chosen for the latter is the Hunt Valley Inn, located in northern Baltimore County approximately 35 minutes from the University. This facility offers a new concept in hostelries in the Baltimore area and provides such recreation as golf, tennis and swimming. In addition to attending the reunion, Hunt Valley would prove to be the perfect place to "get away from it all" for a few days. For those of you who elect to stay at Hunt Valley, bus transportation will be provided to and from the University for the reception on Tuesday evening, May 27, and the Annual Business Meeting and luncheon on Wednesday, May 28. For those members who prefer to stay in the downtown area, transportation will also be provided to and from Hunt Valley for the banquet on Wednesday evening.

I sincerely hope you are making plans to join us on May 27 and 28 as extraordinary arrangements are being made to celebrate our 100th Anniversary.

University of Maryland DERMATOLOGY ALUMNI REUNION

Dr. Harry M. Robinson, Professor and Head of Dermatology, informs us that in 1973 dermatologists who received post graduate training at the University of Maryland and Dermatology graduates of the University of Maryland met for a reunion at the American Academy of Dermatology meeting in December. There were approximately fifty physicians and their wives present. The University of Maryland Dermatology Alumni Association met on December 9, 1974, at the Palmer House in Chicago. This will be an annual affair. Dr. Robinson and Dr. Ronald Goldner, Assistant Professor of Dermatology, were responsible for organizing the group.

University of Maryland ranks seventh in the United States for having graduated the largest number of physicians who have successfully passed the American Board of Dermatology examination. This is a very worthy record considering the fact that the major teaching schedule has been performed by non-salaried physicians in the Division of Dermatology.

ALUMNI

**YOU DON'T WANT TO
PAY TWICE . . .** but an optional contribution of \$5.00 or \$10.00 will help defray the expense of inviting the Senior Class to the Annual Banquet on May 28, 1975.

**Send your check now—payable to
the Medical Alumni Association.**

OYSTERS "R" IN

On Friday, November 1, 1974, the Alumni Association sponsored an Oyster Roast at Eudowood Gardens for the Junior Class of the School of Medicine. Approximately 200 junior students, faculty, alumni and guests enjoyed the festivities.



Hungry juniors at the buffet table.



Dr. William H. Mosberg, Jr., President-Elect, (center of photo) chatting with members of the Jr. Class.



Chancellor Albin O. Kuhn and Albin O. Kuhn, III, member of the Jr. Class.



Left to right Dr. Henry H. Startzman, Jr. Mrs. Startzman, Mrs. Dunseath, Dr. William J. R. Dunseath, Past President Dr. Robert B. Goldstein, President; Mrs. Goldstein.



Left to right Mrs. G. Robert Mason, Dr. Clarence W. Hardiman, Dr. G. Robert Mason (back), Dr. Dennis K. Wentz (front), Dr. Richard F. Morton and Mrs. Morton.



Junior Students chat between bowls of oyster stew, oysters on the half shell, oyster fritters and other goodies.



Left to right: Dr. Maureen M. Henderson, Dr. James G. Zimmerly, Dr. Charlotte Ferencz, Dr. Jerome Pleet, Dr. Richard F. Morton.



Left to right: Mrs. Harry L. Knipp; Dr. Harry L. Knipp, Class of 1951; Harry C. Knipp, President of Class of 1976; Miss Joan Miller, R.N., School of Nursing, 1973. Harry is the fourth generation of physicians in his family to graduate from the University of Maryland School of Medicine. His grandfather was George A. Knipp, Class of 1923 and his great-grandfather was Harry E. Knipp, Class of 1887.



Dr. Y. C. Lee and Dr. John M. Dennis, Dean.

MEDICAL ALUMNI ASSOCIATION

1875 CENTENNIAL 1975

PROGRAM

Tuesday, May 27, 1975

6:00-11:00 p.m.

Davidge Hall

Cocktail Party

Hot and Cold Hors D'oeuvres

Wednesday, May 28, 1975

9:00 a.m.

Davidge Hall

Registration

Coffee and Pastries

10:00 a.m.—Noon

Chemical Hall, Davidge Hall

Scientific Session

Annual Business Meeting

1:00 p.m.

Circle One Restaurant

Alumni Luncheon

(Cash Bar)

Holiday Inn

Lombard and Howard Streets

7:00 p.m.

Hunt Valley Inn

Reception of Guests and

50-Yr. Graduates

8:00 p.m.

Hunt Valley Inn

Annual Banquet

9:30 p.m.—1:00 a.m.

Ladies Activities

Dancing (Open Bar)

To be announced at later date

Hotel Accommodations

Hunt Valley Inn

Interstate 83 at Shawan Road

Hunt Valley, Maryland 21031

Phone: 301/666-7000

Holiday Inn—Downtown

Lombard and Howard Streets

Baltimore, Maryland 21201

Phone: 301/685-3500

Lord Baltimore Hotel

Baltimore and Hanover Streets

Baltimore, Maryland 21203

Phone: 301/539-8400

The Baltimore Hilton

101 W. Fayette Street

Baltimore, Maryland 21201

Phone: 301/752-1100

Note: Courtesy transportation will be provided for all Alumni activities, regardless of choice of hotel accommodations.

ALUMNI CHATTER

Gary A. Belaga, '70, Baltimore, Md., completed his residency in Neurology at Northwestern University in Chicago and has been appointed Director of Neurology, Electroencephalography, and Electromyography at South Baltimore General Hospital.

• • •

Robert T. Williams, '68, Warsaw, N.Y., will join his father, Richard T. Williams, '40 in the practice of Vascular and General Surgery in June, 1975.

Randolph M. Williams, U. of Va., '71 will join them in 1978.

• • •

William L. Boddie, '67, Modesto, Cal., is Director of Gastroenterology at the Scenic General Hospital in Modesto. He has served as Chief of Gastroenterology at Fort Carson Army Hospital, Fort Carson, Colorado and received the Army Commendation Award for Service.

• • •

Paul A. Kandler, '65, Great Lakes, Illinois, Chief of Ophthalmology, U.S. Naval Regional Medical Center, Great Lakes, Ill., CDR MC USN was appointed Assistant Professor of Surgery at the Chicago Medical School, in June, 1974.

• • •

Donald A. Deinlein, '64, Birmingham, Ala., has been certified by the Board of Orthopedic Surgery and has received an appointment as Assistant Professor of Orthopedic Surgery at the University of Alabama Hospitals and Clinics.

• • •

Louis Caplan, '62, became a Diplomate of both the American Board of Internal Medicine in 1969 and of the American Board of Neurology & Psychiatry in 1972 and a Fellow of the American College of Physicians in 1973. Dr. Caplan is presently Assistant Professor of Neurology at Harvard Medical School and Chairman of the Department of Neurology at Beth Israel Hospital in Boston.

Jonas A. Shulman, '60, Atlanta, Ga., has been promoted to Professor of Medicine at Emory University. Dr. Shulman, Associate Professor of Preventive Medicine and Community Health, Professor of Medicine and Assistant Dean for Clinical Curriculum, School of Medicine, has been with Emory since 1967. He did his postgraduate work at the University of Washington School of Medicine, Seattle. Prior to going to Emory, he served with the Epidemic Intelligence Service of the Communicable Disease Center, U.S. Public Health Service, Atlanta.

• • •

Sebastian J. Gallo, '57, Wethersfield, Conn., Sr. Pathologist at the Middlesex Memorial Hospital in Middletown, Conn., has been certified in Radioisotope Pathology by the American Board of Pathology.

Dr. Gallo has an academic appointment as Assistant Professor of Pathology at the University of Connecticut School of Medicine.

• • •

Ira N. Tublin, '54, Silver Spring, Md., has been appointed by Governor Marvin Mandel to a four-year term on the Kidney Commission for the State of Maryland.

• • •

George S. Fritz, '54, Corpus Christi, Texas, completed his residency at Baylor in Houston and is now in private practice in Dermatology in Corpus Christi.

• • •

James R. Grabill, '52, Little Silver, N.J., has been named Vice President of Medical Affairs for the Medicinal Products Division of the Miles Laboratories, Inc. Dr. Grabill was previously with the Schering Corporation as Senior Associate Medical Director. Prior to his employment with Schering, he was Associate Director of Clinical Research at Abbott Laboratories and was in private practice in Baltimore from 1953 to 1965.

Dr. Grabill did his undergraduate work at Georgetown University and interned at Bon Secours Hospital in Baltimore. He also served as an instructor in the Department of Medicine at Northwestern University Medical School from 1965 to 1969.

• • •

Pascal D. Spino, '47, Greensburg, Pa., was honored for his many contributions to his community at a testimonial dinner in November sponsored by the American Heart Association, Southwestern Pennsylvania Chapter. Dr. Spino is a pediatrician and Past President of the Chapter.

George Winokur, '47, Iowa City, Iowa, Professor and Head of Psychiatry at The University of Iowa, has been named the Paul W. Penningroth Professor of Psychiatry at the U of I.

The professorial chair has been made possible through a grant from the Penningroth Foundation of Atlanta, Ga., whose assets were transferred to The University of Iowa Foundation in 1973.

The professorship honors the late Dr. Penningroth, a 1922 U of I graduate, who pioneered many mental health programs in the Southeast and who was a prominent national and international educator in the treatment and care of emotionally disturbed children.

Dr. Winokur, who became Professor and Head of Psychiatry at the U of I in 1971 and who will continue in that post as the Penningroth Professor of Psychiatry, has directed his research toward a better understanding of the specific diseases and their possible causes among the large number of mental illnesses classified as "affective" or mood disorders.

His studies of possible genetic causes for these diseases have been recognized nationally and internationally. Last year, he received the \$10,000 first prize for research awarded by the Anna-Monika Foundation of Basel, Switzerland. The research of 140 scientists was reviewed in determining the prize-winners.

In 1972, Dr. Winokur and two fellow researchers were named co-winners of a Hoheimer Prize for Research from the American Psychiatric Association for genetic studies in alcoholism.

Dr. Winokur received an A.B. degree from Johns Hopkins University and the M.D. degree from the University of Maryland. He took his specialty training in psychiatry and neuropsychiatry at the Seton Institute in Baltimore and Barnes Hospital in St. Louis. He was Professor of Psychiatry at Washington University, St. Louis, before going to the U of I.

• • •

Etta C. Leahy, '42, Kettering, Ohio, is Medical Director of the Children and Youth Project of the Montgomery County Health Department in Dayton, Ohio.

• • •

Gibson J. Wells, '36, Baltimore, Md., was ordained a Deacon in the Episcopal Church, Diocese of Maryland on June 7, 1974 by the Rt. Rev. William Cox, Suffragan Bishop of Maryland, at the Church of St. Michael of All Angels. Dr. Wells is a member of the Clergy staff at St. Michael's. He is also still actively engaged in the private practice of Pediatrics

and has an appointment as an Associate Professor at the University of Maryland School of Medicine.

• • •

J. Savin Garber, '29, Jamaica, N.Y., was honored in December at the Queens Inaugural Dinner Dance launching the Joint Campaign of the United Jewish Appeal—Federation of Jewish Philanthropies.

Dr. Garber serves on the Board of UJA and has given more than four and half decades of medical service to members of his community. He has been chairman for two years of both the Queens Physicians Division and the Homes and Hospital Division's Proprietary Hospital Division. He is a member of the Israeli Medical Association, on the Board of the Parkway Hospital and a director of its Department of Family Practice, on the Advisory Council of the Forest Hills Jewish Center and a leader in many of the Jewish organizations in New York and Israel.

• • •

Morris H. Saffron, '28, Passaic, N.J., received Columbia University's Presidential Citation for Distinction for his service to Columbia and the Libraries. Dr. Saffron is a practicing dermatologist in New York and Passaic, N.J., and earned his Columbia Ph.D. at 63. Dr. Saffron was recognized for "his contributions to the academic world as an authority in the field of the history of medicine," and for his "noteworthy tenure" as Chairman of the Council of the Friends of the Libraries and for his gifts to the Libraries. A lecturer on the history of medicine at the College of Medicine and Dentistry of New Jersey, Dr. Saffron is an authority on American colonial medicine. Dr. Saffron was the first Chairman of the Section on Historical and Cultural Medicine of the Academy of Medicine of New Jersey. He is also honorary curator of the Library of Science and Medicine at Rutgers, an emeritus trustee of the Passaic Public Library and a trustee of the New Jersey Historical Society.

ERRATUM

It was noted in the "Alumni Chatter" section of the November, 1974 issue of the *Bulletin* that Nelson Handler, '72, Baltimore, Md., 3rd year resident in Psychiatry at Johns Hopkins Hospital, was appointed a Fellow by the American Psychiatric Association. This should have read: Nelson *Hendler* was appointed a *Falk* Fellow by the American Psychiatric Association.

FACULTY NEWS

New Appointments, Promotions & Resignations

Joseph S. Brito, M.D., Consultant — RADIOLOGY (appointment effective 8-1-74) Veterans Administration Hospital, Fort Howard, Maryland 21052; 477-1800, Ext. 324.

Dennis White, M.D., Assistant Professor — RADIOLOGY (appointment effective 9-15-74) 212 Melancton, Lutherville, Maryland 21093.

Mushtaq Ahmad Khan, Ph.D., Assistant Professor — PEDIATRICS (promotion effective 9-1-74) 8188 Weyburn Road, Millersville, Maryland 21108; 987-5133.

Christine A. Nelson, Ph.D., Assistant Professor — PHYSICAL THERAPY (appointment effective 8-25-74) 8315 Roanoke Avenue #6, Takoma Park, Maryland 20012; 588-5910.

Colin F. Mackenzie, M.B., Ch.B., Visiting Assistant Professor — ANESTHESIOLOGY (appointment effective 1-1-75) address not available yet.

Patrick Oliver Maher, M.B., Ch.B., Visiting Assistant Professor — ANESTHESIOLOGY 6802 Bonnyridge Drive, Baltimore, Maryland 21209.

Uriel Sandbank, M.D., Visiting Professor — PATHOLOGY (appointment effective 8-10-74) 6808 Harrowdale Road, Baltimore, Maryland 21209, 484-1902.

Robert E. Davenport, D.D.S., Instructor — PEDIATRICS (appointment effective 9-8-74) 7951 Old Jessup Road, Jessup, Maryland 20794; 799-7348.

John A. Levi, M.B., B.S., Assistant Professor — MEDICINE (appointment effective 7-1-74) 526914 Rivendell, Columbia, Maryland 21044; 997-9449.

George W. Krause, M.S., Instructor — PATHOLOGY (appointment effective 9-9-74) 4613 Horizon Circle, Apt. #1, Baltimore, Maryland 21208; 655-5381.

Estrellita P. Trias, M.D., Instructor — PEDIATRICS (appointment effective 10-1-74) 2604 N. Patapsco Avenue, Apt. 2C, Baltimore, Maryland 21230; 525-0007.

Frank Johnson, M.Div., Clinical Instructor — PSYCHIATRY (appointment effective 9-1-74) 315 Whitestone Road, Silver Spring, Maryland 20901; 681-5486.

Kenneth S. Gimbel, M.D., Assistant Professor — MEDICINE (appointment effective 7-1-74) 6 Millstone Road, Randallstown, Maryland 21133; 761-9671.

Arthur L. Gudwin, M.D., Assistant Professor — SURGERY (promotion effective 7-1-74) 3 Cedar Point Road, Severna Park, Maryland 21146; 647-8677.

Barbara S. Hawkins, M.S., Associate — SOCIAL & PREVENTIVE MEDICINE (appointment effective 7-1-74) 9430 Diamondback Drive, Columbia, Maryland 21045; 730-8722.

Argye I. Hillis, Ph.D., Assistant Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 7-14-74) 510 West Joppa Road, Towson, Maryland 21204; 296-3365.

Mohammad Khodabandelou, M.D., Instructor — PEDIATRICS (appointment effective 7-1-74) Rosewood Hospital, Owings Mills, Maryland 21117; 363-0300.

Raymond E. Knowles, Jr., M.D., Assistant Professor — MEDICINE (promotion effective 7-1-74) 1011 N. Charles St., Apt. 2, Baltimore, Maryland 21201; 837-8375.

Myron Max Levine, M.D., Assistant Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 6-1-74) 4212 Milford Mill Road, Baltimore, Maryland 21208.

Mohammad Maisami, M.D., Staff Physician — PEDIATRICS (promotion effective 7-1-74) 1005 B. Pleasant Oaks Road, Baltimore, Maryland 21234; 828-4844.

Louis W. Miller, M.D., Assistant Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 7-1-74) 6203 Wirt Avenue, Baltimore, Maryland 21215; 358-8583.

Michael J. Murphy, Ph.D., Research Associate — CELL BIOLOGY & PHARMACOLOGY (appointment effective 8-15-74) 12 H. Fitzgerald Court, Baltimore, Maryland 21234.

Herbert S. Ormsbee, III, M.S., Instructor — SURGERY (appointment effective 9-1-74) 5915 Tomas Drive #10, Columbia, Maryland 21045.

Morris Perry, M.D., Assistant Professor — FAMILY MEDICINE (appointment effective 7-1-74) 11602 Georgia Avenue, Silver Spring, Maryland 20902; 942-0014.

Nancy H. Doub, Ph.D., Associate — SOCIAL & PREVENTIVE MEDICINE (appointment effective 8-18-74) Apt. B-1, Harpers Farm Rd., Columbia, Maryland; 730-2494.

Gary W. Nyman, M.D., Instructor — PSYCHIATRY (appointment reinstatement) 5748 Cross Country Blvd., Baltimore, Maryland 21209.

Sharad S. Deshpande, Ph.D., Research Associate — CELL BIOLOGY & PHARMACOLOGY (appointment effective 10-21-74) 1962 Woodlawn Dr., Apt. H, Baltimore, Maryland 21207.

Alfred J. Daniels, M.D., Instructor — FAMILY MEDICINE (appointment effective 11-1-74) 119 Fulton Ave., Baltimore, Maryland 21223; 947-8765.

James G. Zimmerly, M.D., M.P.H., J.D., Assistant Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 7-1-74) 12001 Triadelphia Rd., Ellicott City, Maryland 21043; 531-5964.

Richard C. Lavy, M.D., Assistant Professor — PEDIATRICS (promotion effective 9-1-74) 4 Ford Circle, Annapolis, Maryland 21401; 268-2435.

Lisa Robinson, Ph.D., Assistant Professor — PSYCHIATRY (promotion effective 8-27-74) 4 Thornhaugh Court, Baltimore, Maryland 21208; 486-4181.

Nicholas Buendia, M.D., Assistant Professor — MEDICINE (appointment effective 7-1-74) 162 Springside Drive, Timonium, Maryland 21093; 252-2988.

Barbara A. Bergmann, M.D., Clinical Instructor — PSYCHIATRY (appointment effective 10-1-74) 607 Charles St. Ave., Towson, Maryland 21204; 296-6473.

Yick-Kwong Chan, Ph.D., Associate Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 10-1-74) V.A. Cooperative Studies Program Support Center; Perry Point.

M. Wharton Young, M.D., Ph.D., Visiting Professor — ANATOMY (appointment effective 9-10-74) 3230 Park Place, N.W., Washington, D.C. 20010; 723-5150.

Jon D. Globerson, M.Sc.D., Consultant — PEDIATRICS (appointment effective 9-24-74) 7 Firefly Circle, Apt. C, Cockeysville, Maryland.

Lyn Gordon, M.S., Director of the Child Life Program — PEDIATRICS (appointment effective 8-1-74) address not available yet.

Harris Chaiklin, Ph.D., Assistant Professor — PSYCHIATRY (appointment effective 7-1-74) 5173 Phantom Court, Columbia, Maryland 21044; 730-4843.

Wulfred Berman, M.B., Ch.B., Assistant Professor — PEDIATRICS (appointment effective 7-1-74) 8021 Woodgate Court, Baltimore, Maryland 21207; 922-6469.

Robert Chabon, M.D., Assistant Professor — PSYCHIATRY (appointment effective 7-1-74) 5453 New Grange Garth, Columbia, Maryland 21045; 730-4537.

Albert Roth, M.D., Assistant Professor — FAMILY PRACTICE (appointment effective 7-1-74) 7008 Eversfield Drive, Hyattsville, Maryland 20782; 277-3612.

John Harvey, M.D., Assistant Professor — FAMILY PRACTICE (appointment effective 7-1-74) 1205 East Street, Frederick, Maryland 21701; 662-8731.

Howard J. Shear, Ph.D., Clinical Assistant Professor — PSYCHIATRY (appointment effective 7-1-74) 7311 Prince Georges Road, Baltimore, Maryland 21207; 484-5205.

Susan Hetherington Fischman, D.P.H., Assistant Professor — PREVENTIVE MEDICINE (appointment effective 9-9-74) 2812 W. Strathmore Avenue, Baltimore, Maryland 21209; 764-2503.

Tomofusa Tsuchiya, Ph.D., Research Associate — BIOCHEMISTRY (appointment effective 10-1-74) Broadview Apts. #220, 116 W. University Pky., Baltimore, Maryland 21218.

Leonard A. Stone, M.A., Instructor — PHYSICAL THERAPY (appointment effective 9-22-74) 27 Overhill Road, Catonsville, Maryland 21228; 744-1378.

Jean Bernard du Buy, M.D., Assistant Professor — ANATOMY (appointment effective 10-1-74) 4504 Delmont Lane, Bethesda, Maryland 20014; 942-4162.

Rene L. Gelber, M.D., Assistant Professor — SURGERY (appointment effective 9-1-74) 10579 Twin Rivers Road, Columbia, Maryland 21044; 997-4544.

James A. Quinlan, Jr., M.D., Assistant Professor — MEDICINE (appointment effective 7-1-74) 126 Brandon Road, Baltimore, Maryland 21212; 296-5135.

Theodore Wolff, M.D., Instructor — PEDIATRICS (appointment effective 10-1-74) 2204 Oxeve Road, Baltimore, Maryland 21209; 653-0570.

Alfred A. Lucco, Ph.D., Assistant Professor — PSYCHIATRY (appointment effective 7-1-74) 3704 Spring Meadow Drive, Ellicott City, Maryland 21043; 465-4395.

Albert M. Powell, Jr., Clinical Assistant Professor — PSYCHIATRY (appointment effective 7-1-74) P.O. Box 185, Rt. 1, Myersville, Maryland 21773; 293-2610.

Raymond Roger Little, M.D., Assistant Professor — PHYSICAL THERAPY (appointment effective 9-1-74) 35 Old Sound Road, Joppa, Maryland 21085; 679-7085.

Richard E. Sampliner, M.D., Assistant Professor — MEDICINE (appointment effective 7-1-74) 3213 Bancroft Road, Baltimore, Maryland 21215.

Joyce Shaffer, R.N., M.A., Staff Psychologist — PEDIATRICS (appointment effective 9-1-74) 5716 Ranny Road, Baltimore, Maryland 21209; 664-2078.

William P. Tong, Ph.D., Research Associate — CELL BIOLOGY & PHARMACOLOGY (appointment effective 9-10-74) 3421 Tuland Drive, Hyattsville, Maryland; 422-4803.

Thavinsakdi Viravathana, M.D., Assistant Professor — RADIOLOGY (appointment effective 8-1-74) 2508 C. Rellim Road, Baltimore, Maryland 21209; 681-5944.

Martin P. Wasserman, M.D., Assistant Professor — PEDIATRICS, (appointment effective 7-1-74) 7604 Brown Bridge Road, Highland, Maryland 20777; 774-7265.

Kenneth D. Wilde, Ph.D., Assistant Professor — PATHOLOGY (promotion effective 7-1-74) Rt. 3, Box 50A3, Washington Avenue, Severn, Maryland 21144.

John C. Sutherland, M.D., Assistant Professor — PATHOLOGY (appointment effective 7-1-74) 23 Chiara Court, Dulaney Towers, Towson, Maryland 21204; 821-7087.

Stephen M. Austin, M.D., Assistant Professor — MEDICINE (appointment effective 7-1-74) 2247 Rogene Drive, Baltimore, Maryland 21207.

William G. Bruce, M.D., Assistant Professor — SURGERY (appointment effective 7-1-74) 2912 Kings Ridge Road, Baltimore, Maryland 21234.

Noel K. Maclaren, M.D., Assistant Professor — PEDIATRICS (appointment effective 7-1-74) 1907 Fairbank Rd., Baltimore, Maryland 21209; 466-6342.

Frances J. Fitch, Coordinator In-Service Training (promotion effective 10-15-74) 3936 Cloverhill Rd., Baltimore, Maryland 21218; 467-7849.

John C. Rhead, Ph.D., Psychologist — MEDICINE (appointment effective 10-21-74) 5468 Endicott Lane, Columbia, Md. 21044; 730-6112.

James O. Dolly, Ph.D., Assistant Professor — CELL BIOLOGY & PHARMACOLOGY (appointment effective 10-1-74) address not available yet.

Theodore H. Kaiser, M.D., Assistant Professor — PEDIATRICS (re-appointment effective 7-1-74) R.R. 7, P.O. Box 803, Englemede Rd., Pikesville, Maryland 21208; 484-7162.

Cloe M. Sojit, Clinical Assistant Professor — PSYCHIATRY (appointment effective 10-1-74) 5101 Moorland Lane, Bethesda, Maryland 20014; 657-3401.

Sandra R. Leichtman, Ph.D., Assistant Professor — PSYCHIATRY & PEDIATRICS (joint appointment effective 10-1-74) 110 W. 39th St., Apt. 1816, Baltimore, Maryland 21210.

Marvin C. Kamback, Ph.D., Associate Professor — PSYCHIATRY (appointment effective 10-1-74) 2 East Read St., Baltimore, Maryland 21202; 752-0673.

Alan Lowell Sorkin, Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 9-1-74) 9110 Ramblewood Rd., Baltimore, Maryland 21236; 256-4528.

John R. Little, M.B., Ph.D., Associate Professor — MEDICINE (appointment effective 10-13-74) 1101 St. Paul St., Baltimore, Maryland 21202.

Yryo Collan, M.D., Research Associate — PATHOLOGY (appointment effective 10-8-74) 8907 Tamar Drive, Apt. 102, Columbia, Maryland 21045.

Elsie M. Reinhardt, Associate — NEUROLOGY (appointment effective 8-26-74) 3431 Leverton Avenue, Baltimore, Maryland 21224; 276-6191.

Thongbliew Prempre, M.D., Ph.D., Associate Professor — RADIOLOGY (appointment effective 9-1-74) 9321 Dunloggin Road, Ellicott City, Maryland 21043; 465-6944.

Edward U. Buddemeyer, Sc.D., Associate Professor — MEDICINE (appointment effective 7-1-74) 11507 Notch Cliff Road, Glen Arm, Maryland 21057; 592-6040.

Ethelred E. Carter, M.D., Assistant Professor — MEDICINE (appointment effective 7-1-74) 5247-1 Brookway, Columbia, Maryland 21044; 997-2267.

Patrick Noel Connaughton, M.D., Assistant Professor — RADIOLOGY (promotion effective 7-1-74) 7011 Lachlan Court, Towson, Maryland 21239; 667-1514.

David Beatty Crawford, M.D., Assistant Professor — RADIOLOGY (appointment effective 7-1-74) 5485 Green Dory Lane, Columbia, Maryland 21044; 730-8726.

Renan J. Dureza, M.D., Assistant Professor — MEDICINE (appointment effective 7-1-74) 5506 Greenleaf Road, Baltimore, Maryland 21210; 467-7849.

Resignations

Yoshinari Kamijyo, Instructor — NEUROLOGY, resigned 10-31-74.

Allen Fertziger, Assistant Professor — PHYSIOLOGY, resigned 6-30-74.

Robert L. Gingell, Assistant Professor — PEDIATRICS, resigned 11-8-74.

Margaret Olivier, Assistant Professor — PATHOLOGY, resigned 10-19-74.

Anna Maria Klumpp, Assistant — PHARMACOLOGY, resigned 9-4-74.

Alfred Parisi, Associate Professor — MEDICINE, resigned 10-5-74.

Hans Glaumann, Associate — PATHOLOGY, resigned 10-31-74.

Lois Roeder, Assistant Professor — PEDIATRICS, resigned 10-4-74.

Polly Roberts, Instructor — PEDIATRICS, resigned 6-30-74.

Allen Fertziger, Assistant Professor — PHYSIOLOGY, resigned 6-30-74.

Peter Devlin, Psychometrician — PEDIATRICS, resigned 6-30-74.

Alvin D. Rudo, Instructor — SURGERY, deceased 10-26-74.

Rosa M. Gryder, Assistant Professor — BIOCHEMISTRY, resigned 11-9-74.

Ying-Lang Lin, Instructor — OPHTHALMOLOGY, resigned 11-30-74.

Rustu E. Onur, Research Associate — CELL BIOLOGY & PHARMACOLOGY, resigned 10-31-74.

Kiyoshi Chinen, Instructor — ANESTHESIOLOGY, resigned 12-31-74.

Brigita Krompholz, Instructor — PREVENTIVE MEDICINE, leave of absence 10-11-74.

Roger Byhardt, Assistant Professor — RADIOLOGY.



DAVIDGE HALL IS A PRICELESS HERITAGE —SUPPORT ITS RESTORATION!



When originally constructed, the building now known as Davidge Hall included a "Blue Room" where, for an extra fee, students could meet with faculty members for conferences and special tutoring. Plans for restoration would find the "Blue Room" reappearing, again to be used as an informal conference room, by students, faculty, and alumni. Restoration will not only enhance the beauty of this venerable structure, it will expand its usefulness to the entire Baltimore campus. It will continue to be the "oldest medical school building in the Western Hemisphere in continuous use for the teaching of medical students."

Lend a hand in the restoration of this authentic piece of Maryland and medical history. Send your contributions to the Davidge Hall Restoration Fund c/o Maryland Medical Alumni Association, 522 West Lombard Street, Baltimore, Md. 21201.

ALUMNI NEWS REPORT

TO THE BULLETIN:

I would like to report the following: _____

SUGGESTIONS FOR ITEMS

American Board Certification

Change of Office or Address

Residency Appointment

Research Completed

News of Another Alumnus

Academic Appointment

Interesting Historic
Photographs and Artifacts

Scientific Articles

.....

Name _____

Address _____

Class _____

Send To: George H. Yeager, M.D.
Editor, Alumni Bulletin
University of Maryland
School of Medicine
Room 107 Gray Laboratory
Baltimore, Maryland 21201

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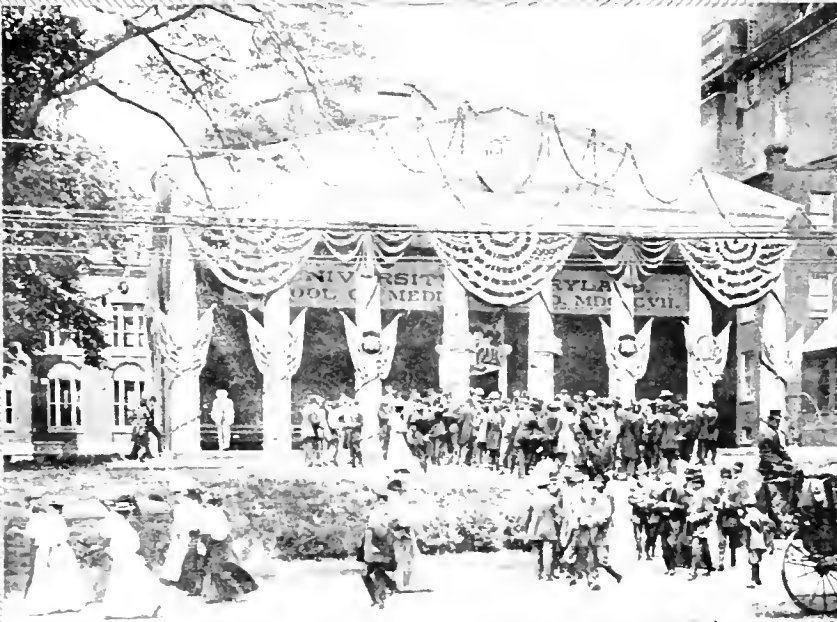
May, 1975

BULLETIN

university of maryland school of medicine

1875-1975 CENTENNIAL CELEBRATION

Medical Alumni Association



CONSTITUTION

PREAMBLE: We, the Alumni of the School of Medicine of the University of Maryland, desiring to further the interest and advancement of the University of Maryland School of Medicine and to perpetuate the associations made during the medical school period, do hereby adopt this Constitution for the governing of the Medical Alumni Association.

EDITORIAL BOARD

George H. Yeager, M.D.
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BASIC SCIENCE DEPARTMENTS

University of Maryland School of Medicine

Dianne T. Burch

PROLOGUE

Lorin J. Mullins, Ph.D.

The basic science departments in the University of Maryland School of Medicine, as defined by the Faculty By-Laws, are: Anatomy, Biological Chemistry, Biophysics, Microbiology, Pharmacology and Experimental Therapeutics, and Physiology. The roles in each of these areas are similar, being to introduce first and second year medical students in each field through instruction (in collaboration with several clinical departments) during the pre-clinical years of study.

The instructional philosophy behind the organization of the present curriculum is that of introducing first year students to the structure and function of normal man primarily and, in the second year, giving consideration to the abnormalities that may occur within the human system.

Most alumni and friends of the University of Maryland School of Medicine are well acquainted with the medical school curriculum as it has been given in the first two years, but may not be aware of changes in the presentation of this material. In addition, since so much of the departments' activities and efforts rely on the research conducted by faculty members within each area, it was thought desirable to include in this issue of the *Bulletin* an article which presented a brief survey of these essential endeavors.

Ed. Note: Dr. Mullins is Professor and Chairman, Department of Biophysics, University of Maryland School of Medicine.

ANATOMY

Lloyd Guth, M.D.

The Department of Anatomy is now being reorganized: a permanent Department Chairman has been appointed, additional faculty members are being recruited, and the teaching and research facilities are being enlarged and modernized to meet the needs of today's medical and graduate students. These commitments to the discipline of Anatomy are indicative of the pivotal position that this subject plays in the education of the medical student. This education can be properly provided



Dr. Lloyd Guth, incoming Chairman, Department of Anatomy

only by qualified scientists who, as a result of their own laboratory experiences, can make the student aware of the dynamic, ever-changing nature of scientific hypotheses, facts, and dogma.

Teaching

As with most medical sciences, Anatomy can be learned only by direct observation under the tutelage of a scholarly, scientifically-qualified faculty. The use of computerized teaching devices and other audio-visual aids to introduce new concepts and facilitate general review of subject matter will increase when the department moves to its new quarters in the Howard Hall Addition. However, it should be stressed that such devices are not a substitute for laboratory exercises and live teaching. The student does not become educated merely by memorizing the facts that we deem important. Quite the contrary, he must learn to question each of these facts, to attempt to verify them by direct observation in the laboratory, and to turn to his tutors with further questions. Lectures in Anatomy encourage student participation as a vital element in the educational process, even though it may seem disruptive to the lecturer at times. We dare not return to the passive teaching methods of 25 years ago.

Research

Anatomy is often thought to be a mere descriptive science, incapable of generating the excitement of the more dynamic experimental disciplines. However, research in Anatomy need not be only descriptive. It was the great Spanish anatomist, Santiago Ramón y Cajal, who used anatomical techniques to elucidate such important physiological concepts as the neuron doctrine and the mechanism of nerve regeneration. Future research in the Department of Anatomy will likewise deal with important dynamic questions of current biology. Such investigations will be distinguished from those of the other basic science departments more by the techniques employed than by the subjects investigated. Research will focus on the field of experimental biology to gain further insight into the principles by which the structural organization of cells, tissues, and organs is achieved and maintained. We envision an exciting research program which will attract the interest of graduate students and of medical students considering a career in teaching and research.

Summary

The study of Anatomy is fundamental to the training of the medical student as it initiates him into the vocabulary and language used by physicians. Basic information derived from the subject is essential to further studies in other basic science areas and the clinical disciplines. Additionally, it is here that the freshman medical student encounters the experience and privilege of examining, through dissection, the human body. This physical act facilitates the psychological transition from undergraduate student to student physician. It is this subtle transformation, reflecting an unconscious awareness of the beauty and importance of the human body, that enables the student to become prepared for the responsibilities of medical practice which call on him to treat the ill with a balance of objectivity and compassion.

Editor's Note: Dr. Guth is the newly appointed Chairman of Anatomy who will assume his new role on July 1.

BIOLOGICAL CHEMISTRY

Since the subject of biological chemistry seeks to understand the phenomena of biology in terms of molecular structure and interaction, its influence permeates virtually all the biological and medical sciences. This strength is also its weakness in the perception of many medical students,

for much of what needs to be taught is not now directly applicable to the major clinical subjects.

Teaching Changes

As is the case with many of the basic sciences, laboratory teaching in medical school biochemistry has come to be regarded as having doubtful value relative to its time demands. This is particularly true since many of the students entering medical school have already had significant exposure to the subject as well as to chemical laboratory procedures at the undergraduate level. However, first year students are able to return to the laboratory in a new role—that of a Student Research Assistant. Started this year, Student Assistantships are available to a limited number of qualified and interested Freshmen in their choice of research areas. Currently, six students are getting a first-hand look at biochemistry in action by working a minimum of ten hours up to 15 hours per week for which they are paid a small salary.

For some years the Medical Biochemistry core course has offered a sequence of correlation sessions with case presentations from one of the clinical departments as a means for study.

Research Interests

All members of the department's faculty are engaged in independent research projects which are federally funded and involve a number of topics of current interest in biochemistry. Even though, by the nature of the subject, such endeavors are often rather basic and not dedicated research in practical terms, the end result may be applicable to human needs. The following offers a glimpse at current efforts undertaken by each faculty member, showing the varied approaches.

Dr. Elijah Adams, Department Chairman and Professor, is studying the biology and biochemistry of the connective tissue protein, collagen. In particular, his work deals with the collagen of basement membranes—tissues that form a structural surface upon which cells rest. Since changes in these membranes occur in a number of human diseases, for example, renal complications of diabetes and glomerulonephritis, a better understanding of both normal and pathological conditions is needed.

Partners in and out of the laboratory, Dr. Enrico Bucci and his wife, Dr. Clara Bucci, concentrate on hemoglobin research. Both were trained at the Institute of Biochemistry, University of Rome, one of the major hemoglobin centers in the world. Interested primarily in the study of human hemoglobin, one of their major research goals is to

uncover more about the relationship between chemical structure and physiological function. Research of this nature is vital since hemoglobin, a major carrier of oxygen, is fundamental to many aspects of normal and diseased physiology.

Dr. Seymour Pomerantz is seeking to learn more about the biochemistry and hormonal regulation of melanin formation, a major pigment of man and animals. As one aspect of this work, he is studying the levels of enzymes in skin samples from newborn infants of both Negro and Caucasian origin. In animals, current studies are exploring hormonal regulation of pigment metabolism using in-bred mice of various coat colors in order to determine if melanin formation via the enzyme tyrosinase alone is the key factor to the differences exhibited.



Dr. Mary E. Kirtley, Associate Professor, Biochemistry

An enzymologist, Dr. Mary E. Kirtley's research focuses on enzymes that act as catalysts in the process of glycolysis, the breaking down of sugars into simpler compounds such as lactic acid. More recently, she has studied glycolytic enzymes in the membrane of the red blood cell as part of the current stream of interest in membrane binding and its effect on the behavior of the enzyme. The outgrowth of such research is a better awareness of what effect this level of bound enzyme has on the red blood cell itself.

Dr. Lindsay Black is a biochemical geneticist working on the assembly of viruses. As such, he is

one of the few scientists on campus who is focusing on virology at the molecular level. Virus assembly is of interest as a simple model of differentiation.

Dr. Leonard Frank is investigating problems dealing with the uptake of amino acids by bacteria. Cells can only function by what they take up, a process known as "transport." The clinical areas of medicine are interested, for the most part, in the transport of drugs, nutrients, hormones, etc. within the body system. To this end, bacteria can be utilized as important models for these fundamental functions because they perform, in many basic ways, in the same manner as mammalian cells. The potential for such research is a further investigation of the fundamental aspects of cell transport. In a related area, Dr. Barry Rosen is investigating the molecular mechanisms of energy transduction in biological membranes. Chemical energy derived from the utilization of nutrients must be converted to forms which can be utilized to power processes such as transport.

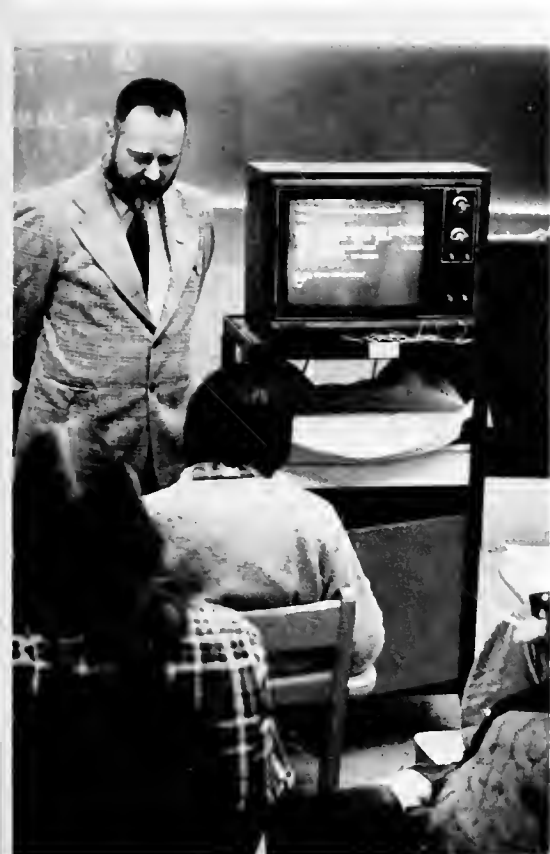
Dr. Charles Waechter is examining the formation of two major components of cell membranes, glycoproteins and phospholipids, to learn more about the details and regulation of the assembly process. He is concentrating on myelin, the lipid-rich membrane that forms an insulating sheath around certain nerve fibers.

Outlook

As the department continues to grow, Dr. Adams sees a need for further expansion in those areas bearing a closer relationship to cell biology. The present effort of much biochemistry is to apply the mass of information on life processes now available at the molecular level to a better understanding of processes at the cellular level. To augment such a development, the department would like to attract faculty with strength in the biochemistry of cell differentiation and in animal cells in culture.

BIOPHYSICS

The teaching aim of the Department of Biophysics is, by statement of purpose, "to provide medical students with a background in the physicochemical principles necessary to an understanding of physiology and the neurosciences." Beginning in the fall semester of 1975, the required first year course, "Principles of Biophysics", will be given in conjunction with the Department of Physiology to solidify this relationship. Another change in the teaching program has



Dr. Albert Hybl, Associate Professor, Department of Biophysics, teaching "Application of Computers to Medicine" using teletype terminal.

been the introduction of a fourth year elective course, "The Application of Computers to Medicine" taught by Dr. Albert Hybl, Associate Professor. This program, begun two years ago, introduces students to the potential of the computer by enabling him to gain "hands on" experience using a teletype terminal to interact "conversationally" with one of several computers. The course, attended by both medical and graduate students as well as staff members, explores the techniques needed to undertake digital simulation of physiological processes, statistical analysis, plotting, and FORTRAN (a computer language whose basis is mathematical) programming.

Research

In general, all research within the department focuses on cell membrane to discover what causes nerve impulses. According to Dr. Lorin Mullins, Chairman of the Department and Professor, "if a patient is acutely ill, very often the pathology can be found in the cell membrane." The four mem-

bers of the department engaged in various aspects of such research provided the following descriptions of their projects for this article, summarized here.

Dr. Lorin J. Mullins is interested primarily in the factors that control free calcium concentration inside cells and particularly within nerve cells. All evidence to date indicates that free or ionized calcium is present at very low concentrations indeed and that this free concentration can change in a matter of seconds when metabolite or electrolyte changes take place either on the inside or outside of the cell. In turn, changes in calcium concentration can be translated into changes in membrane permeability, electrical excitability, or changes in the internal biochemistry of the cell.

The experimental laboratory work utilizes the nerve fibers of the giant squid because their large size, often 0.75 mm in diameter, makes it possible to insert dialyzing tubes into the fiber to control the internal as well as external environment readily. Concentrations of calcium can be adjusted inside the nerve fiber by the use of EDTA buffers which control ionized calcium to any desired degree, and substrates can be added at will. The results have shown that calcium removal from the nerve cell is dependent upon the membrane potential primarily because there is an exchange across the membrane of sodium present in the tissue fluids for calcium inside the fiber; at least three sodium ions enter the fiber for every calcium ion that leaves. Hence, a charge imbalance exists in this exchange process that is sensitive to the membrane potential. It has also been demonstrated that as the internal sodium concentration is raised in a nerve fiber, less of an energy gradient exists for pumping the calcium out so that calcium efflux declines. Further experimental findings show that this sodium-calcium exchange does not require substrate, but ATP does have an effect upon both the ion affinities and the maximum rate at which sodium-calcium exchange takes place.

Dr. R. A. Sjodin, Professor, is investigating the mechanisms for movement of sodium and potassium ions across muscle and nerve cell membranes. Recent work has indicated the presence of two rather separate systems for moving potassium ions across the skeletal muscle cell membrane. Experimentally, one system is almost totally blocked by millimolar concentrations of barium ions and the other system, by ouabain. In addition, barium stimulates the ouabain-sensitive mechanism to some extent which indicates a possible degree of interaction between the two systems. Ouabain, on the other hand, does not ap-

pear to influence the barium-sensitive system. These mechanisms are only partially understood at this time. However, the sodium ion concentration dependencies of the two mechanisms for moving potassium ions have been worked out and found to be quite diverse, a fact which points to separate membrane mechanisms. It seems clear that the ouabain-sensitive mode of movement corresponds to the classical category of ion movement termed "active transport" and the barium-sensitive potassium influx to that category termed "passive transport." The two agents, barium and ouabain, afford a convenient and useful laboratory method for isolating and studying the properties and molecular mechanisms of the two processes in skeletal muscle membrane. The actual isolation of the two mechanisms must be regarded as being in a very preliminary stage.

Other current work involves a characterization of the sodium ion pump in giant nerve fibers from the marine worm, *Myxicola*. The large size of the fibers and their ready availability make the preparation useful in such studies. Often, it is found that the results obtained on giant invertebrate nerve fibers are rather directly applicable to investigations on mammalian nerve fibers. Such work, of course, cannot be regarded as a replacement for mammalian nerve investigations.

Associate Professor Dr. L. A. Beaugé is carrying out research related to the translocation of sodium through biological membranes using preparations that include human red blood cells and frog skeletal muscle.

Regarding active sodium transport, it has been found that lithium ions can replace potassium as external activators of the sodium pump. However, lithium is less effective than potassium both in its affinity for the activation sites and the maximal rate of transport it can promote. In addition, the stimulating effect of potassium is increased in the presence of lithium. This increment is not a simple additive effect and, under some conditions, is accompanied by an increased potassium uptake. All these findings correlate with other biochemical information regarding the activity of an ATPase present in membrane fragments as well as the relation of ATPase to the active sodium-potassium transport. These results become quite relevant when one takes note of the pharmacological effect of lithium ion on some psychiatric disorders.

In studying passive sodium movements, experimental evidence supports the notion that the sodium ion can cross the membrane via a facilitated diffusion mechanism, implying the possibility of a carrier mediated mechanism having an

influx/efflux stoichiometry, the mathematics of chemistry, that's different. These findings are generally applicable to the concepts of both carrier mediated fluxes and simple leak of electrodiffusion fluxes.

In collaborative research, Drs. Beaugé and Sjödin are investigating the influence of the resting membrane potential of muscle fibers on activation of the sodium pump by external potassium ions. This study is important because potassium ions in the medium have a two-fold action, namely membrane depolarization and stimulation of active sodium ion outward transport. Clearly, it is vital to establish whether or not membrane depolarization per se is responsible for some activation of sodium ion transport. To answer the question, experiments are being performed at constant membrane potential with varying potassium ion concentration, and at constant potassium ion concentration with varying membrane potential. Variation of the internal chloride concentration and external application of the compound azide are useful experimental procedures to achieve these ends.

Dr. Albert Hybl is engaged in crystallographic research in an effort to try to determine how the molecular structure of the components of biological membranes affects the membrane function. The components of particular interest to him are the lipids, especially the phospholipids of which there are many, each containing different structural features. His aim is to synthesize analogs of these phospholipids; that is, chemicals which have similar kinds of structures to those which occur naturally in membranes. Once a compound has been extracted, he then grows a crystal of the substance in order to study the structure by means of the x-ray crystallography technique. X-ray diffraction is employed—the bouncing of x-rays off the various planes of the crystal onto film producing thousands of points that, in turn, are analyzed by computer to determine the precise structure of the molecule. Dr. Hybl hopes to define the three-dimensional geometric structures of a series of molecules which differ only in one property; for example, a variation in the number of carbon atoms. In this way it can be determined how the variation in the one property affects the total geometry of the molecule. Through this procedure, he can then relate how these variations in structures influence the performance of biological membranes.

MICROBIOLOGY

The Department of Microbiology plays an active

role in the medical community through the training of both undergraduate medical students and PhD candidates plus extensive research efforts in the campus laboratories and at field locations throughout the world.

Teaching Program

Undergraduate students are introduced to the field through the second year course, "Medical Microbiology and Immunology", a course designed to prepare medical students for the handling and prevention of infectious disease. Immunology is a vital aspect for study since it affects so many areas of medicine. The department is continually reviewing and altering the course to keep pace with current teaching trends. Another course, "Clinical Immunology", is a short but intensive course attended by students, house officers and faculty.

Two faculty members, Dr. William Myers and Dr. Rosslyn Kessel, have developed a close-working relationship with the Office of Medical Education over the past several years in an effort to develop various types of audio-visual aids to allow greater flexibility and individualized course structure. So much progress has been made in the areas of immunology, parasitology and mycology that they have been asked to attend the American Society of Microbiology to discuss their achievements so that other microbiology departments may benefit.

A training grant from the Institute of Allergy and Infectious disease permits PhD candidates to study in the areas of rickettsiology and arbovirology, the primary focus of the department. The small but active graduate program is supplemented by the participation of several post-doctoral fellows.

Field Research

Though a major part of the department's research concentrates on rickettsial studies, the forms it takes are varied and far-reaching as they involve basic, clinical and ecological factors. Much of the research effort involves the study of rickettsial disease predominantly found in the underdeveloped "third world" nations; however, though not as prevalent, some of these diseases do exist in the United States as well. In fact, murine typhus was first discovered in Baltimore and Rocky Mountain Spotted Fever, one of the more severe rickettsial diseases, is indigenous to our region.

In Ethiopia, a Navy-supported study of typhus involves both clinical and epidemiological studies of epidemic and murine types. One scientist is on

permanent residence and Dr. Charles Wisseman, Jr., Chairman and professor, and Dr. Robert Traub, professor, make periodic visits there. Left untreated, epidemic typhus in undeveloped countries or in famine regions can carry a mortality rate as high as 50 per cent. While murine typhus, a disease transmitted to humans by the infected fleas of rat carriers, is not deadly, it is debilitating.

Dr. Traub is considered to be one of the leading world experts on the study of fleas. Not only has he described an enormous number of new species, but he has also developed innovative concepts related to the zoogeography of fleas and flea-borne disease which take into account modern theories of continental drift. The outcome of such research is a better understanding of why certain diseases prevail in specific regions of the world.

Similarly, it was the department's field research efforts in Pakistan during the early '60's that uncovered chigger-borne scrub typhus, a persistent rickettsial disease, in regions never before suspected—from the semi-desert plains to the Karakorum, a Himalayan mountain range with peaks soaring to 26,000 feet. This discovery caused scientists to revise their thinking about the zoogeography of the disease and to develop a new hypothesis concerning the origin of serotypes and their genetic stability in nature. In addition to scrub typhus, department researchers detected the presence of several species of the spotted fever group including new species and species related to strains present in the Soviet Union.

In Burundi, located in Central Africa, a typhus epidemic has affected the area for the past several years. In the face of this widespread disease, Dr. Wisseman headed a team from the department and the U.S. Army which carried out the first successful field trial using a living attenuated vaccine. Plans are underway to conduct a similar test in Rwanda, the adjoining region, that will compare the effectiveness of both killed and living attenuated vaccines. These tests are being conducted under the auspices of the World Health Organization.

Through these studies, the department has uncovered a complex pattern of insecticide resistance by body lice, the transmitters of typhus fever. This resistance, which interferes with disease control, has been related to the use of agricultural insecticides, a problem that recurs as stronger insecticides are produced which in turn produce more resistant disease carriers. As a result of these findings, the Pan American Health and World Health organizations convened an In-

ternational Symposium at the close of 1972 to effect better controls on body lice and louse-borne diseases.

Under the sponsorship of the two organizations, an additional study is being made on epidemiology of typhus and the influence of attenuated vaccines in the Altiplano region of Bolivia. Both Dr. Traub and Dr. Wisseman serve as consultants to the World Health Organization; additionally, Dr. Wisseman is a consultant to the Pan American Health Organization.

Laboratory Research

On campus, the research laboratory of the department is a world reference center for the study of rickettsial diseases and, as such, is one of a select group of collaborating labs in the world under the aegis of the World Health Organization. Because of its acclaimed efforts, the lab serves as a training center for scientists all over the world interested in improved diagnostic and research methods. Recently, visiting scientists have come from Bolivia, Burundi and India to study. The Chief of the Rickettsial Disease Laboratory at the Pasteur Institute in Paris is currently in training. Later this year, a scientist from the Israel Institute of Biological Research in Tel Aviv will arrive on sabbatical leave, bringing with him new strains of rickettsiae for identification and definitive study.

Dr. David Silverman, who recently joined the department, has developed the electron microscope facility and, as a result, is actively collaborating in the study of rickettsiae viruses.

The sophisticated methods for scrutiny of the basic rickettsial agents are applicable to a wide variety of investigations including genetic studies. An intensive study of the basis for immunity to typhus is also ongoing. Another effort by Dr. Myers has been the development of methods for mass cultivation, in an artificial medium, of the organism that causes trench fever. Through research, the department has gained considerable evidence for the unreported occurrence of trench fever where body lice are evident—in Bolivia, Mexico, Burundi and Ethiopia.

Locally, another faculty member, Dr. Paul Fiset, is studying the possibility that Q Fever is transmitted to fetuses through an interuterine infection. He is conducting tests in the dairying counties of Maryland where the incidence of Q Fever is greater because of the presence of livestock carriers. Some evidence that interuterine transmittance occurs was found in Cairo, Egypt and the current project hopes to learn if a similar situation exists in Maryland.

In addition to the multi-faceted rickettsial studies, the department conducts extensive research programs in arthropod-borne viruses both in the field and in the lab. Much of the work on campus has been through the efforts of Dr. Ollie Eylar.

Research Expansion

In an effort to expand the facilities for the study of rickettsial diseases in different parts of the world, Dr. Wisseman spent three weeks last September in Poona, India at the Virus Research Institute helping to establish a laboratory for such a study under the auspices of the World Health Organization. The formation of similar labs in Burma and Indonesia within the next few years is now in the planning stage.

PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

The former Department of Cell Biology and Pharmacology has a new name and a new outlook due, primarily, to the efforts of the department's new chairman, Dr. Edson X. Albuquerque, appointed last June following a two-year search by a School of Medicine committee. The change was initiated because Dr. Albuquerque feels that the term "cell biology" implies any discipline in biology and is actually misleading for a department in which the emphasis is Pharmacology. Because the basic research deals with new forms of drug therapy, the second half of the title, "Experimental Therapeutics", was added. The new department chairman hopes to establish a much more cohesive relationship between the basic and clinical sciences in all of the department's activities.

The main objective of the newly organized department is the teaching of pharmacology fundamentals to medical and graduate students. Students can apply for programs leading to the PhD degree or, pending final approval, the combined MD-PhD degree. The faculty is composed of a group of young scientists with MD, PhD, or combined degrees and at least two to three years of postdoctoral experience in their fields of expertise. Although the department is suffering from an acute lack of space at the present time, the opening of the Howard Hall Addition in the fall of 1975 will allow the department to expand and reach its full research and teaching potential.

Research

Currently, major research emphasis is in the neurological sciences. However, many important



Dr. Edson X. Albuquerque, Chairman, Department of Pharmacology & Experimental Therapeutics

areas of pharmacology such as cancer chemotherapy, cardiovascular pharmacology, pharmacology of the hemopoietic system and receptor macromolecules are also well represented. As part of the move toward a greater compatibility between the basic and clinical sciences, current muscular dystrophy research involves direct collaboration with clinical departments in the hospital. This and other joint research efforts require the invaluable assistance of the departments of pediatrics, pathology, neurology, and cardiovascular surgery.

In addition, research conferences involving interested persons from other schools in Maryland and out of state are held every Monday in the department.

Teaching Activities

Instructing second year medical students in the principles of pharmacology is a major teaching responsibility. The course consists of 63 hours of formal lectures, a series of special topics in pharmacology, clinical conferences, demonstrations, and films offered by the entire staff.

The discussion group segment of the course enables small groups of students to meet with individual staff members for two periods of five-weeks duration each to study two specific areas of pharmacology in depth.

The demonstrations by the department offer students first-hand experience regarding the action of drugs on living systems and are given in lieu of laboratories, which by necessity have been eliminated from the course. The department is actively seeking alternatives to the laboratory exercises which were a most prominent instructional method in the classical pharmacology course structure.

As a teaching tool, the department also employs self-instructional material. For example, students have access to a bank of questions, written by leading pharmacologists in the country as well as by members of the staff, in a computer file. Plans to establish a program of computer-assisted instruction for continuing education programs are also being formulated.

Graduate education constitutes the second major teaching responsibility of the department. As sources of support are generated, it is anticipated that the number of individuals seeking the PhD and combined MD-PhD degrees will increase. A number of courses are offered by the staff ensuring graduate students sufficient exposure to important historical precepts and to the most recent ideas and advances in pharmacology.

Since June, the staff has introduced four new graduate courses in addition to those listed in the graduate school bulletin. One of the courses, "Pharmacology of Anesthetic Agents" will be jointly offered by the Departments of Anesthesiology and Pharmacology for the next academic year. It is hoped that this mutual effort will set a precedent for establishing a meeting ground for advanced students in the basic science and clinical departments.

Division of Clinical Pharmacology

A proposal to form a Division of Clinical Pharmacology involving active collaboration with the basic science and clinical departments in teaching as well as research is under final negotiation. The graduate course mentioned above is an outgrowth of this division. Objectives of the new division will be to teach, to guide research, and to provide services related to clinical pharmacology. While this division will be associated with the clinical departments, administrative control will be through the Department of Pharmacology and Experimental Therapeutics.

The most important teaching function will be the training of clinical pharmacologists since the demand will be greater than the supply for years to come. This training will be closely affiliated with the graduate training program of the department.

Graduate courses will be offered by both the Department of Pharmacology and Experimental Therapeutics and the Division of Clinical Pharmacology with additional input gained from a number of departments within the Schools of Medicine and Pharmacy.

Research efforts of the new division will be, by nature, directed toward the solution of fundamental problems related to the effects of drugs on man. Because it will serve as a strategic link between pharmacology and the clinical disciplines, particularly Medicine, division members should be able to attack a given problem in the basic science laboratory, in the clinic, or both as the occasion demands.

Each member of the new division will devote a portion of his time toward rounds, outpatient service, and other clinically-oriented areas. Additionally, the division could well serve as a center for collecting, from our affiliated hospitals, information about serious and unmanageable reactions to drugs and then transmitting such data to the appropriate agencies upon request.

These are the goals for the new division. As a capable division head is selected and staff designated, these energetic goals will be more in evidence, serving as proof of the interdependent relationship between the basic science and clinical areas.

PHYSIOLOGY

The Department of Physiology is entrusted to teach the principles of physiology to students of medicine by means of lecture, laboratory and seminar courses. In addition, the department is heavily committed to graduate doctoral education and, in support of this effort, is utilizing two grants at present: a reproductive endocrinology training grant that involves collaborative research with the Department of Obstetrics and Gynecology and a general training grant.

Changes in Teaching Format

In order to meet the varied educational goals of the students, the core course, "Principles of Physiology", is now being taught in three different ways. In all three instances the purpose remains constant; that is, to provide the student with competence in physiology. According to the course outline, this competence entails "not only the acquisition of a relevant body of knowledge, but also the ability to use that knowledge in an appropriate fashion, whether it is called problem solving or clinical judgment." The differences occur in the

approach to the material presented, the degree of active student participation, procedures for evaluation, and methods of grading.

The Lecture-Conference Course represents the familiar traditional approach to teaching and consists of four lectures and one conference per week. Conferences are of two types: first, the quarter-class discussion to clarify difficult concepts, demonstrate problem-solving, and encourage student discussion of old examination questions; second, the "small-group" (four to eight students) in which students present short reports on some physiological subject.

Forty students are enrolled this semester in the Case Study Program, a relatively new technique, this being the third year for its use. Six faculty members participate in the instruction, each meeting in small groups with five to six students together with a clinical faculty member and an illustrative hospital case. This approach is designed for problem-solving with the patient as the reference point for discussion. The purpose of such an approach is to enable the student to look for questions—not answers—related to body dysfunction. Following the presentation, each student picks out a specific problem based on the hospital case to research and then presents it in a formal oral report.

The Library or Laboratory Research Program is an independent study approach limited, as is the case study method, to students in good academic standing. This year three students are participating in the laboratory and one in the library. Students in both the case study and independent research programs are urged to attend the traditional lectures and generally do so in order to supplement knowledge acquired.

Research

Though the research undertaken is sometimes carried out independent of other faculty members within the department, its intent falls into one of four general areas of study: endocrinology, water and electrolyte metabolism, neurophysiology, membrane function and transport of electrolytes.

Those faculty members involved in endocrinology research are: Dr. Charles A. Barraclough, Dr. Abram B. Fajer, Dr. Cornelia P. Channing, Dr. Judith L. Turgeon and Dr. Oneida M. Cramer. In general, the group's efforts are focused on control of secretion of gonadotropin and the manner in which it is influenced by various sex hormones. Both the positive and negative feedback aspects of this control and its relationship to ovulation are being investigated. Through their endeavors,

more is hoped to be learned about the intimate neurotransmitter mechanisms that permit the flow of this information in the hypothalamus portion of the brain.

Additionally, Dr. Channing's research involves ovarian function and the way in which hormones influence the cells of the ovary to form corpora lutea after ovulation. As a vehicle for study, she is examining the fluid in the follicle to determine its role in the process. In related research, Dr. Fajer is concentrating on the development of the follicle itself and its latter-stage conversion into corpus luteum. Through such research, he hopes to learn more about the control of hormonal secretions from and metabolism of the corpora lutea.



Dr. William Blake, Chairman, Department of Physiology, in frog laboratory

Dr. William Blake, Dr. Gabriel G. Pinter, Dr. Amin N. Jurf and Dr. Barbara K. Urbaitis have turned their attention to the study of water and electrolyte metabolism. Working independently of the others, Dr. Blake, Chairman of the Department, is discovering how frogs adapt to their environment by means of a "natural surroundings" set-up in the laboratory. Little work had been done on why certain frogs select particular environments including fresh, salt and brackish waters, as well as land. For this reason, Dr. Blake is

experimenting to establish whether or not a behavioral mechanism, in addition to hormonal mechanism, accounts for the frog's ability or inability to adapt to his surroundings.

The other three faculty members mentioned have turned to the human kidney for study; primarily, the permeability of the capillaries surrounding the tubules within and how this might be influenced by various disease and functional states of the kidney. Through study, the team is attempting to determine the amount of protein that leaks out of the capillaries during the process of reabsorption of plasma back into the capillaries after passing through the kidney. During diuretic conditions, these capillaries are differentially permeable. In conjunction with this effort, they are consulting with Dr. Fajer to learn what effect diabetes might have on capillary permeability and, in turn, the impact on kidney function in general.

Dr. Edmund Glaser, Dr. Daniel Ruchkin, Dr. Otis Blaumanis and Dr. Charles Abzug are the faculty members studying various aspects of neurophysiology. Dr. Glaser is testing rats and cats as an effective means for determining more about the mechanism within the brain that permits a sound to be converted into an interpretable signal. Dr. Ruchkin's efforts involve further analysis of the electroencephalogram. Dr. Blaumanis is interested in the relief of vasospasm in the cerebral arteries by the use of therapeutic drug agents and, in collaboration with the Department of Neurology, the investigation of sympathetic and parasympathetic control of the pial blood vessels and the resulting degree of vaso-constriction. The way the vestibular system, that which defines movement in space and how individuals perceive it, is utilized by the brain is the principal research interest of Dr. Abzug.

Dr. Lawrence Goldman and Dr. Lyle Horn are researching, independently, membrane function and transport of electrolytes. In research similar to that conducted in the Biophysics field, Dr. Goldman's interest is in the mathematical modeling of the process of excitation in membranes. Dr. Horn, a new member of the faculty, has developed a technique for measuring the water in fat cells in order to examine the kinetics of transport of solutes across fat cell membranes, an area in which little research has been conducted.

Photos: Phil Szczepanski

ED. NOTE: Dianne T. Burch is Assistant to the Dean for Publications, University of Maryland School of Medicine.

RECENT CHANGES IN OPHTHALMOLOGY

R. D. Richards, M.D.

The Ophthalmology Department has changed a great deal in the last five years, with significant additions of equipment and services.

Fluorescein retinal angiography has become an important aid in diagnosing retinal diseases. Fluorescein is injected intravenously and pictures, every $\frac{1}{3}$ to $\frac{1}{2}$ second, are taken with a special retinal camera as the fluorescein passes through the retinal blood vessels. Abnormal vessels with areas of occlusion or leakage can be identified. Lesions not visible with a ophthalmoscope can be identified. More and more indications are being found to take fluorescein pictures of the retina and choroid. We have our own photographer to take these pictures.

An Argon Laser is now available for treatment of selected patients with diabetic retinopathy and other suitable retinal lesions. (Fig. 1) The long term value of Argon Laser treatment for diabetic retinopathy has not been determined, but preliminary findings indicate a significant number of patients can be helped. Various types of macular degeneration are also being treated with promising results. Experimental work suggests that

glaucoma may be treated in some instances. If the Argon Laser is not appropriate for a particular lesion, a Photocoagulator is also here for use. Fluorescein pictures are taken first to determine suitability of treatment for retinal diseases.

Other new equipment in the Eye Clinic in the past five years include a Goldmann perimeter, tonography unit, and applanation tonometer for complete evaluation of glaucoma patients. An experienced ophthalmic technician does the peripheral field testing in the Goldmann perimeter. Visual fields are used to follow the progression of glaucoma as well as other retinal and neurological lesions. Tonography and applanation tonometry are also done by our technician, and help to determine effectiveness of glaucoma treatment.

An automatic refractor is run by a nurse or technician to determine the refractive error of a patient. (Fig. 2) Glasses are not prescribed on this basis, but the results are used as a base for the resident's examination. This saves him time and permits residents to see more patients in the Ophthalmology Out Patient Clinic.



Fig. 1—Argon Laser in use. Fluorescein picture of retina is on screen at right rear.



Fig. 2—Technician doing refraction on patient with automatic refractor.

An Optical Shop was opened last spring (May, 1974) with a full-time optician to measure for frames and order glasses for patients. Patients appreciate the added convenience. Residents appreciate the better communications concerning special problems that arise with regard to glasses prescriptions.

An orthoptist is present two days per week to work with children with strabismus. Complete equipment, including a synoptophore, is available for evaluation and for orthoptic treatment. This is a great help in determining how much and what kind of extraocular muscle surgery should be done.

The Contact Lens Clinic has expanded to provide clinical experience for residents in fitting all types of hard and soft contact lenses. These include both lenses for vision and lenses for treatment of various types of corneal lesions.

A Neurosensory Center in the Ophthalmology Out Patient Clinic has an electrically shielded room so that electroretinograms, electro-oculograms, dark adaptations, color vision matching and evaluation of nystagmography can be done. These tests are very important in the diagnosis of various retinal diseases, as retinitis pigmentosa.

New equipment in the operating room includes a giant magnet and Berman metal locator for detection and removal of intraocular foreign bodies, and complete cryotherapy and diathermy units for retinal detachment, cataract, and glaucoma surgery. A new ceiling-mounted microscope is used for intraocular surgery. (Fig. 3) The ceiling mount permits easier manipulation and saves time and floor space. Both surgeon and assistant have independent units, each with variable magnification. Lighting is by side and co-axial units.

The addition of the microscope has made it possible to have a Phaco-emulsification unit and a Visc

unit. The Phaco-emulsification unit uses ultrasonic vibrations to break up cataractous lenses and the small pieces are then aspirated through a needle. A cataract can be removed through a smaller incision. This is particularly useful for children with congenital cataracts.

The Visc is a vitreous infusion suction cutter. Vitreous filled with hemorrhage can be removed to find the reason for the bleeding and then carry out proper treatment. Patients with diabetic retinopathy are the ones most commonly seen with vitreous hemorrhages.

A new ultrasonography unit makes it possible to visualize the internal ocular structures when the cornea, lens, or vitreous are opaque. If a patient with a vitreous hemorrhage does not have a tumor or retinal detachment when examined by ultrasound, then it is safe to remove the vitreous with the Visc. If there is something else in the vitreous, it can be identified by ultrasonography, and then avoided by the Visc.

If an intraocular tumor is suspected, but cannot be seen clearly, ultrasonography helps in the diagnosis. A further aid is the use of our new P^{32} diagnostic probe. P^{32} is given to the patient, and is taken up by tumor cells more rapidly than normal tissue. The probe is placed near the tumor and an increased concentration of P^{32} indicates the possibility of a tumor.

Each resident in the Ophthalmology Clinic has a well-equipped office in which to see and evaluate patients. The introduction of new techniques and new instruments has added greatly to our ability to provide better ophthalmic care for our patients.



Fig. 3—Ceiling-mounted surgical microscope being used for ocular surgery. Both surgeon and assistant have a microscope.

Ed. Note: Dr. Richards is Professor and Head, Department of Ophthalmology, University of Maryland Hospital.

WHAT IS BEING TAUGHT IN THE MEDICAL SCHOOLS TODAY

As The Preferable Surgical Treatment of Breast Cancer?

Harry C. Hull, M.D.

The purpose of this paper is to report the results of an inquiry to 120 chairmen of departments of surgery in U.S. and Canada as to what students are being taught as the preferable surgical treatment of operable breast cancer and to make a few comments. The inquiry was not sent to specialists in famous private clinics or to thousands of practicing surgeons. It is meaningful, however, in that it denotes present day teaching in the medical schools, to thousands of future doctors.

The survey was prompted by the continuing controversy, particularly over the last decade, concerning radical mastectomy over lesser surgical procedures in treating operable breast cancer. Publications in lay journals, newspapers, "throw aways" and presentations on radio and television surely must confuse some members of the profession, the public, and especially the victims of this dread disease, as to the proper therapy. Specialists of repute, strong advocates of one surgical method over another, at times have bitterly denounced colleagues who favored a different approach. Resultant editorials or papers have appeared quoting multiple articles and figures favoring the author's stand. In turn these writings have provoked rebuttals which at times have bordered on defamation. Although these diatribes do not settle the question, new interest should be aroused concerning results of the treatment of an old and terrible disease of still unknown etiology. The *Index Medicus* each year lists from 450 to 650 articles dealing with breast cancer. Surgical papers appear on simple excision (lumpectomy), quadrantectomy, hemispherectomy, simple mastectomy, modified radical mastectomy, radical mastectomy with and without preoperative or postoperative irradiation. Super-radical operations seem less popular in this decade. Variables as to size, extent and location of tumor, palpable or non-palpable nodes, age and condition of the patient, are all considered, sometimes separately, at other times together.

What does the medical student derive from all of this literature? At times the student must think the treatment of breast cancer is "dealer's choice". What is the student predominantly taught

regarding preferable treatment for operable breast cancer? Following is the survey question. Admittedly it is difficult to answer without qualifications, such as age, size, location, etc., but it does give the trend.

"In your school of medicine what are the students taught is the preferable treatment of operable breast cancer in otherwise healthy women?"

1. Local Excision
2. Quadrantectomy
3. Simple Mastectomy
4. Simple Mastectomy with Postop. Irradiation
5. Simple Mastectomy with Axillary Dissection. (Modified Radical).
6. Radical Mastectomy
7. Radical Mastectomy with Postop. Irradiation

Of the 120 chairmen, 116 answered the inquiry. Of these 116 who replied, nine would not answer the question. These nine, in general, taught that many modalities were considered and that all patients were individualized as to treatment. Many others, in answering, stressed the importance of individualization (as is done by most surgeons) but did give the consensus of teaching at their schools. Some departments were members of a national study group alternating case surgery but were good enough to mention their preference. Some chairmen selected two methods, i.e., modified radical or radical mastectomy. The results of the survey are shown on Figure 1.

As will be noted from Fig. 1, 93.4% teach complete removal of the breast and dissection of axillary glands for operable breast cancer. In addition, in the study groups, removal of breast and glands are performed in alternate cases.

Thus it would appear from this survey that the future doctors of America and Canada are being taught that removal of the target organ along with the lymph nodes is the procedure of choice. Whether the Patey or Madden modified radical or the Halsted operation is used depends on the surgeon. In principle, however, there is agreement

POLL OF 116 CHAIRMEN OF SURGICAL DEPARTMENTS ON OPERABLE BREAST CANCER

Local Excision for Medullary or Colloid, otherwise Radical	1	
Quadrectomy	0	
Simple Mastectomy	0	
Simple Mastectomy with postop. Irradiation	2	
Simple Mastectomy with Axillary Dissection—Modified Radical	20	38.3%
Radical Mastectomy or Modified Radical (split)	21	
Radical Mastectomy	47	55.1%
Radical Mastectomy with Irradiation for Stage II	12	
Would Not Reply		9
Study Groups	4	
TOTAL	107	

Fig. 1

by the chairmen on removal of the breast and nodes, but not on the removal of the pectoralis muscles.

Comments: The cause of breast cancer is unknown. In all diseases of unknown etiology modes of therapy change from time to time in an attempt to improve cure rates. One should be open-minded about new concepts. Any new idea concerning treatment of breast cancer should be studied. The great difficulty is, however, it will take from ten to fifteen years to assess the value of any new approach, compared to older more or less standardized procedures. During such a period of years many lives may be lost, earlier or later, only time can tell. It behooves the individual surgeon to indulge in a conscience search before discarding the older procedures to accept the new.

In a given patient, because of the erratic behavior of breast cancer, prognosis cannot be made with certainty. Prognosis can be given statistically in hundreds of similar patients, but not in a single one. There are only gross tests available to check for preoperative spread. There are no good tests that can give information concerning early hematogenous spread. Despite mammography and zeroradiography, small (2 mm to 6 mm) multicentric lesions are not consistently identified. If such tests were available, clinical staging would be more accurate with better five and ten year survival rates for Stage I disease.

In a small percentage of patients with breast cancer, blood vessel invasion has occurred, it would seem, before biopsy; e.g. in my experience, for example, a woman of 40 years had a radical mastectomy performed for a small 1 cm. invasive duct cell carcinoma, the nodes were negative, yet she was dead in 10 months of generalized metastases. Though time and statistics have shown the smaller the lesion, the earlier the treatment, the better the prognosis—in this puzzling disease such is not always the case.

Cancer surgery begun in the last century seems to be based on the building of an anatomical "fire break" around the affected organ by wide excision. Where there is an artery there is a vein, where there is a vein there is a lymphatic; ergo, excise widely and hopefully eradicate the primary tumor and its extensions. This approach has been applied to the breast, stomach, colon, uterus, lung, pancreas, etc. Over the decades with improved surgery, anesthesia, fluid balance, available blood, plasma, the operations increased in magnitude in further attempt to improve survival rate, yet cancer still takes its toll. Surgery begun in a limited way, expanded to larger procedures, now begins to contract again in many areas, because the ten year survival rate shows little difference between the radical operation and super radical ones. Despite wide anatomical dissection of tumor and nodes—it is still blood stream invasion that is most often responsible for spread and death.

Host resistance still remains an enigma. To see recurrences ten to twenty-five years after radical mastectomy for Stage I and II lesions results only so far in theoretical explanations for such tumoral behavior. Is it new disease, or has a dormant "spark" which was controlled by host resistance for years suddenly been relighted from change of such resistance? Many questions will remain unanswered until the cause is found. Meanwhile, patients must be treated by methods that promise the best comfortable survival for the patient.

While this poll was being taken, the American Cancer Society policy statement on the surgical treatment of breast cancer was published which in part is quoted:

"Studies on the various techniques of treatment of primary operable breast cancer are now under way in a number of U.S. institutions. However, it will take several years before the results are available. In the meantime, the policy of the American Cancer Society is the following:

1. *Removal of the entire breast (most often the radical or modified radical mastectomy) is recommended for the surgical treatment of operable breast cancer.*
2. *Limited surgical procedures which remove less than the entire breast have not been scientifically proven to be as effective as mastectomy.*

It is interesting to note that 93.4% of the department chairmen agree with this policy of the American Cancer Society.

Summary: A poll of 120 chairmen of departments of surgery in the U.S. and Canada was made. Of this number 116 replied. Of the 116, nine would not answer the query. Of the remaining, 107, 93.4%, teach students that the preferable treatment for operable breast cancer is removal of the breast and axillary nodes. Radical mastectomy was polled by 55.1% and modified radical by 38.3%.

ACKNOWLEDGEMENT

The author wishes to thank all of the Chairmen of the Departments of Surgery who answered the query.

REFERENCES

American Cancer Society Policy Statement on Surgical Treatment of Breast Cancer. *Ca-A Ca Jnl. for Clinicians*, 23:6, pp. 342-343, 1973

Ed. Note: Dr. Hull is Professor of Surgery, University of Maryland School of Medicine.

From the Department of Surgery, University of Maryland Hospital, and Department of Surgery, University of Maryland, School of Medicine, Baltimore, Maryland 21201

ATTENTION 1975 Medical School Graduates

The Annual Banquet of the Medical Alumni Association will be held on Wednesday, May 28, 1975 at the Hunt Valley Inn. Reception at 7:00 p.m., followed by dinner at 8:00 and dancing and an open bar until 1:00 A.M.

Please pick up your complimentary tickets (for you and a guest) at the Alumni Office, Room 201, Davidge Hall, PRIOR TO Friday, May 23, 1975.

If unable to pick up your tickets in person, please phone Mrs. Jean D. Goral, 528-7454.

Progress Report on the Davidge Hall Restoration Project

*John O. Sharrett, M.D.
Chairman
Davidge Hall Committee*

After several months' delay due to the merger of our architectural firm, Kelly and Associates, with Cochran, Stephenson & Donkervoet, the contract was signed on March 18, 1975 for the third and final architectural phase.

This phase of architectural study will consist of: (1) opening walls, ceilings and floors for examination; (2) radiology analysis of hidden construction; (3) mortar and paint chip analysis; (4) photography and (5) comparison with documentary evidence. We anticipate that this contractual work will be completed within one year.

After completion of the study, the Davidge Hall Committee will then make decisions regarding the extent of construction to be done, which or how many areas can be restored to the original condition and the necessary funds required for the completion of the anticipated restoration.

The architect has assured us that we will be able to obtain outside funding for approximately 50% of the architectural contract.

To bring you up to date on donations, the Davidge Hall Fund balance at the end of March was approximately \$95,000. This figure represents donations, income through investments; less expenses. 38 members have completed pledges of \$1,000 or more, 19 members have contributed \$500 or more towards \$1,000 pledges and, of course, many members have contributed less than \$500.

As plans for the restoration become a reality, your continued interest and financial support will become increasingly vital to the restoration of this priceless historical site.

PRESIDENT'S MESSAGE

Robert B. Goldstein, M.D.

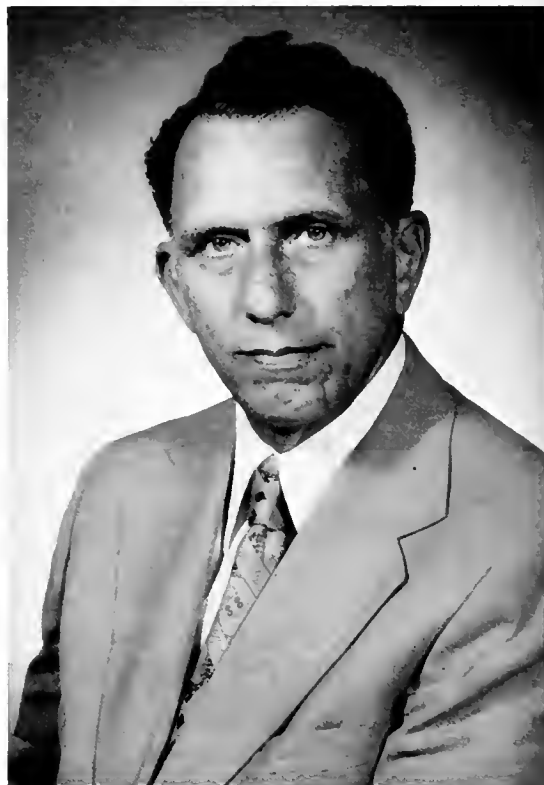
As my term in office draws to a close, I want to take this opportunity to mention the areas of the Medical Alumni Association in which advancements were made.

The most significant improvement has been in the publication of the *Bulletin*, thanks to the tireless efforts of our Editor, Dr. George H. Yeager. I believe the pervasive coverage of timely articles has been outstanding. On behalf of the Officers and Board of Directors, I wish to congratulate Dr. Yeager and his Editorial Assistant, Mary Anne Lantz, on a job well done.

The rapport between the School, Hospital and Alumni Association has greatly improved, due to coordinative abilities of Dr. John M. Dennis, Dean of the School of Medicine. In addition, Dr. Dennis, a fellow alumnus, is keenly aware of the problems expressed by the alumni and has exerted considerable time and effort to respond to your concerns. We are most fortunate to have Dr. Dennis on "our team."

The formation of an Advisory Committee is being initiated by Dr. William J. R. Dunseath in response to an invitation sent to local and out-of-town alumni. A meeting has been scheduled for Tuesday, May 27, to discuss the feasibility of formulating such a committee. When the organization is accomplished, the Alumni Association can only profit by emerging stronger and more influential. A report of the outcome of the conference will be made at the Annual Meeting.

Another noticeable area that has shown progress is the operation of the Alumni office. The office is functioning more efficiently and records, rosters, correspondence and mailing lists have been brought up to date. Also, I am pleased to report that our membership has increased 20%. In our present economy, it is very gratifying to see this renewed interest in our Association.



After considerable delay, I am pleased to advise that we are beginning to show progress on the Davidge Hall Restoration project. The contract for the third and final stage of the survey was signed on March 18. A comprehensive report, prepared by Dr. John O. Sharrett, Chairman of the Davidge Hall Restoration Committee, appears in this issue which will bring you up to date on the project.

At the Annual Business Meeting on Wednesday, May 28, 1975, the presidential responsibilities of the Medical Alumni Association will be turned over to my successor, William H. Mosberg, Jr., M.D. Dr. Mosberg, an enthusiastic alumnus, will strengthen and fortify the Association with his leadership qualities. I sincerely hope each of you will cooperate with Dr. Mosberg to the fullest extent, as you did during my tenure as President.

I trust your calendars have been marked to be with us on Alumni Day, May 27 and 28. At this time, the Class of 1925 will be honored and the Association will celebrate its 100th Anniversary. The Officers, Board of Directors and I look forward to seeing you.

MEDICAL ALUMNI ASSOCIATION CENTENNIAL CELEBRATION PROGRAM

TUESDAY, MAY 27, 1975

6:00-11:00 p.m. Cocktail Reception (Hot and Cold Hors D'oeuvres)
Davidge Hall

WEDNESDAY, MAY 28, 1975

9:00 a.m. Registration and Refreshments
First Floor, Davidge Hall

10:00 a.m. Opening Exercises, Chemical Hall
Robert B. Goldstein, M.D., President
Medical Alumni Association
Welcoming Remarks:
John M. Dennis, M.D.
Dean, School of Medicine
Albin O. Kuhn, Ph.D., Chancellor, University of
Maryland, Baltimore Campus

10:30 a.m. Scientific Session: Edward J. Kowalewski, M.D.,
Professor and Head of Family Practice Program and Staff,
"Continous Comprehensive Patient Care—Challenges
and Rewards"

12:00 Noon Annual Business Meeting

1:00 p.m. Annual Alumni Luncheon (Cash Bar)
Circle One Restaurant, Holiday Inn, Lombard and
Howard Streets

2:30-3:30 p.m. Scientific Session: John M. Dennis, M.D., Dean
School of Medicine, "The Influence of External Forces on
Medicine"—Davidge Hall

7:00 p.m. Reception of Guests, 50-year Graduates and Class of
1975, Main Ballroom, Hunt Valley Inn

8:00 p.m. Annual Banquet, Program and Presentations,
Hunt Valley Inn

9:30 p.m.—1:00 a.m. Dancing and Open Bar

THURSDAY, MAY 29, 1975

10:00 a.m. Pre-Commencement Exercises—Baltimore Hilton Hotel

3:00 p.m. Commencement Exercise—Civic Center

LADIES ACTIVITIES

TUESDAY, MAY 27, 1975

6:00-11:00 p.m.

Alumni Cocktail Reception (Hot and Cold Hors
D'oeuvres)—Davidge Hall

WEDNESDAY, MAY 28, 1975

9:30 a.m.

Departure by bus from University Hospital Circle,
narrated drive through Bolton Hill area, guided tour of
Evergreen House, brief browse through Cross Keys
shops

11:30 a.m.

Sherry Hour, Luncheon and Floral Demonstration,
Seoul Restaurant, Carlyle Apartments, 500 W. University
Parkway

1:30 p.m.

Return to University Hospital and/or Hunt Valley Inn

HOTEL ACCOMODATIONS

Hunt Valley Inn
Interstate 83 at Shawan Rd.
Hunt Valley, MD 21031
Phone: 301/666-7000

Lord Baltimore Hotel
Baltimore and Hanover Streets
Baltimore, MD 21203
Phone: 301/539-8400

Holiday Inn—Downtown
Lombard and Howard Streets
Baltimore, MD 21201
Phone: 301/685-3500

The Baltimore Hilton
101 W. Fayette Street
Baltimore, MD 21201
Phone: 301/752-1100

TENTATIVE COURTESY BUS TRANSPORTATION SCHEDULE

TUESDAY, MAY 27, 1975

Depart Hunt Valley Inn

Depart University Hospital
(Hospital Circle)

5:15 p.m.

6:30 p.m.

7:15 p.m.

8:00 p.m.

8:45 p.m.

11:00 p.m.

WEDNESDAY, MAY 28, 1975

8:15 a.m. — Hunt Valley to University Hospital

9:30 a.m. — Ladies board bus for tour and luncheon
(University Hospital Circle)

1:30 p.m. — Ladies return to University Hospital
and Hunt Valley Inn

3:45 p.m. — University Hospital to Hunt Valley

6:15 p.m. — University Hospital to Hunt Valley

11:30 p.m. — Hunt Valley to downtown Baltimore

1:00 a.m. — Hunt Valley to downtown Baltimore

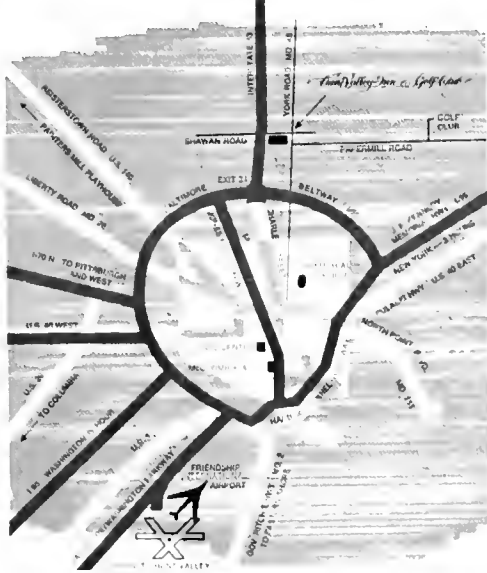
PARKING FACILITIES

TUESDAY EVENING, MAY 27, 1975

Law Lot, Redwood Street, across from Visitors' Parking Lot or University Garage, Redwood and Pine Streets

WEDNESDAY, MAY 28, 1975

Fayette Street Garage, Fayette Street, W. of Greene St.



FIVE-YEAR REUNION CAPTAINS

- | | |
|---|---|
| <p>1925—Samuel S. Glick, M.D.
Joseph Nataro, M.D.
Co-Chairmen
c/o Medical Alumni Association
522 W. Lombard Street
Baltimore, MD 21201</p> <p>1930—Marius P. Johnson, M.D.
16 Over Ridge Court
Baltimore, MD 21210</p> <p>1935—Harry M. Robinson, Jr., M.D.
3506 N. Calvert Street
Baltimore, MD 21218</p> <p>1940—Edmund G. Beacham, M.D.
710 Thornwood Court
Baltimore, MD 21204</p> <p>1945—Vincent DeP. Fitzpatrick, Jr., M.D.
1900 E. Northern Parkway
Baltimore, MD 21214</p> | <p>1950—Henry H. Startzman, Jr., M.D.
1211 Doves Cove Road
Baltimore, MD 21204</p> <p>1955—Murray M. Kappelman, M.D.
Office of Medical Education
Room 257, Howard Hall
University of Maryland
660 W. Redwood Street
Baltimore, MD 21201</p> <p>1960—Jerome Ross, M.D.
3455 Wilkens Avenue
Baltimore, MD 21229</p> <p>1965—Larry Snyder, M.D.
6609 Reisterstown Road
Baltimore, MD 21215</p> <p>1970—Gary A. Belaga, M.D.
South Baltimore General Hospital
3001 South Hanover Street
Baltimore, MD 21230</p> |
|---|---|

STOP KILLING YOURSELF

by Peter J. Steincrohn, M.D.

GOLF IS GOOD MEDICINE

Miss a two-foot putt, and you have lost a stroke. But many take the game of golf so seriously they are close to gaining a real stroke.

In balance, the game has its advantages. Both golfers and nongolfers will be interested in the following editorial which appeared 75 years ago in *Journal of the American Medical Association* (Aug. 6, 1898), which said in part:

"Long before the Columbian rediscovery of America our hardy Caledonian ancestry amused themselves by playing the royal and ancient games which has been defined as the putting of little balls into little holes with instruments very ill adapted to the purpose . . . Today we find a game with a long pedigree taken up and assimilated from Scotland, and so fascinating as to have spread around the English-speaking world . . .

"There is absolutely no danger attached to the game, and consequently no accidents ensue . . .

"To be more explicit, I may say that in all affections marked by slowing of oxidation, or in those consequent upon intoxication by the products of organic disassimilation, the game of golf is to be recommended as the best adjuvant method of bringing about a cure.

"The obesity and degeneration of middle age, when the biceps has diminished and one's energy is wanting, may be helped by devotion to golf. The further tendency of exercise is to eliminate the so-called diatheses and thus do away with gout, lithemia, headache and dyspepsia; while its hygienic and therapeutic consequences are admissible in cardiac and pulmonary affections.

"Although moderation is advisable in such circumstances, there can be no doubt of the benefit derived in some cases of cough, nervous asthma, and in affections of the bladder and prostate.

"But it is pre-eminently in functional nervous disease that our great Anglo-Saxon game is to be recommended, both as prophylactic and curative. No exercise or recreation is better for the mentally overworked, the hysterical, the melancholic; none helps to preserve the concerted action of eye, brain, and muscle known as the psychological moment; none, perhaps, with the exception of



swimming, gives one so good an appetite; there is not a more sovereign remedy for dyspepsia, and as to insomnia, such a thing scarcely exists among the devotees of golf."

COMMENT: Promises? Promises? Many will say the doctor was a "golf nut." Perhaps. But after 75 years of experience, even modern doctors will say that golf played in moderation is good for the soul, the psyche and the soma.

ED. NOTE: Peter J. Steincrohn, Class of 1923, University of Maryland School of Medicine, who has been living in Coral Gables, Florida since 1956, has had an unusually diversified career in medical writing. In addition to having had articles published in scientific journals, he has had many articles published on medical topics in lay journals. The variety of books that he has had published attests to an exceptionally effective approach from the viewpoint of the lay reader and his comprehension of medical problems.

Dr. Steincrohn has kindly given us permission to publish several excerpts from his writings. Currently, Dr. Steincrohn is working on another book and is writing a column that appears in several daily newspapers, including the *Baltimore Evening Sun*.

ALUMNI CHATTER

Kenneth J. Weiss, '71, Gaithersburg, Md., received an appointment in November, 1974, as Medical Director of the NIH Plateletpheresis Center, National Cancer Institute Supportive Branch, National Institutes of Health, Bethesda, Maryland.

• • •

Robert P. Whitehead, '71, Rochester, Minn., entered the Mayo Graduate School of Medicine as a resident in Internal Medicine.

• • •

Stanley S. Tseng, '70, Brighton, Mass., has completed in residency in Ophthalmology at the Georgetown University Medical Center, Washington, D.C., and has assumed the position as Chief, Department of Ophthalmology, U.S. Public Health Service Hospital, Boston, Mass.

• • •

Irving D. Wolfe, '68, Owings Mills, Md., has been appointed Instructor in Dermatology at the University of Maryland School of Medicine and Chief of the Section of Dermatology at the Loch Raven VA Hospital. In June, 1974, he presented a paper entitled, "Cutaneous Protothecosis in an Immunosuppressed Host" at the Dermatology section of the AMA meeting in Chicago.

• • •

John H. Mather, '67 University of London, Washington, D.C., was Director of the Army Audiology and Speech Center at Walter Reed for one year, and, in 1974, became Assistant Chief in the Otolaryngology Service at Walter Reed Army Medical Center. Dr. Mather will continue as Medical Consultant to the Army Audiology and Speech Center, as well as Consultant in Otology to the Cleft Palate Team and Director of the Otolaryngology Basic Science Program at A.F.I.P. for Military Otolaryngology Residents. This fall, Dr. Mather became a Diplomate of the American Board of Otolaryngology. He was also recently appointed to the Committee on Undergraduate Medical Education of the Society of University Otolaryngologists.

Marvin C. Sachs, '67, Panorama City, Cal., was certified by the American Board of Pediatrics in October, 1974. Dr. Sachs holds appointments as a staff pediatrician at the Southern California Permanente Medical Group, Kaiser Hospital, and Clinical Instructor at UCLA, Department of Pediatrics.

• • •

James G. Zimmerly, '66, University of Maryland School of Medicine and '69, University of Maryland School of Law, Ellicott City, Md., was recently honored by the government of Brazil following his recent visit to Rio de Janeiro to lecture at the National Medical School. Dr. Zimmerly became an honorary member of the Institute of Legal Medicine. Also honored were Dr. Cyril H. Wecht, a physician and lawyer from Pittsburgh, Pa., and The Honorable Arthur Wessel, Jr., Judge of the Allegheny County Court of Common Pleas in Pittsburgh, Pa. The lectures were attended by 90 participants, physicians, lawyers, and judges from the United States, as well as many members of the medical and legal community in Brazil.

While the conference was in session in Rio de Janeiro, an outbreak of meningococcal meningitis occurred, resulting in the deaths of several hundred persons. Since this is the beginning of the carnival time in Rio, with an expected influx of scores of thousands of persons into the city, a major epidemic meningitis was anticipated and, therefore, the population began participating in a mass immunization program. Coincidentally, Dr. Zimmerly was one of the physicians who developed and perfected the meningitis vaccine in 1968. Dr. Zimmerly and the other four developers of the vaccine injected the vaccine into themselves in order to determine its safety and efficacy prior to testing it in others. Dr. Zimmerly in 1968 and in 1969 tested the vaccine in over 30,000 human volunteers. When the results of this vaccine testing were reported in the *New England Journal of Medicine* in February of 1970, the discovery was hailed as another "giant leap for mankind." The meningitis vaccine has been approved for general use in the adult population in the United States and has effectively wiped out the dreaded disease in the military recruit population since its discovery in 1968. It is expected to save thousands of lives each year, especially in underdeveloped countries where epidemics are common.

In addition to his work in medical research, Dr. Zimmerly is the Deputy Editor of the *Journal of Legal Medicine*, a medical journal that has a circu-

lation of 125,000 physicians in the United States and he also is a Professor of Law at Georgetown University Law Center and at The George Washington University, and is an Assistant Professor of Preventive Medicine at the University of Maryland Medical School. Dr. Zimmerly has lectured to medical audiences in nineteen states and twelve foreign countries in the past three years. Dr. Zimmerly's wife, Nancy, has been the President-Elect of the Women's Auxiliary to the Howard County Medical Society for the past two years.

• • •

Richard M. Susel, '66, Baltimore Maryland, is engaged in private practice in Ophthalmology at the St. Agnes Medical Center. A diplomate, American Board of Ophthalmology, he is Clinical Instructor in Ophthalmology, and Chief of the Cornea Service at University of Maryland Hospital and Maryland General Hospital. Dr. Susel is a fellow of the American Academy of Ophthalmology and a fellow of the American College of Surgeons.

Recently, he was elected a delegate to the House of Delegates of the Med-Chi representing Howard County, and is a member of the Med-Chi Reference Committee. Dr. Susel serves as a member of the Board of Directors of the Medical Eye Bank of Maryland.

• • •

Carolyn J. Pass (Susel), '66, Baltimore, Maryland, is engaged in the private practice of dermatology at the St. Agnes Medical Center and the Howard County Medical Center. A diplomate, American Board of Dermatology, she is an instructor in dermatology at the University of Maryland Hospital. Dr. Pass is a fellow of the American Academy of Dermatology and has been awarded the coveted "Becker Gold Award" for excellence in teaching exhibits by her Academy.

Dr. Pass has recently been elected Secretary-Treasurer of the Maryland Dermatologic Society and is an alternate delegate to the Medical and Chirurgical Faculty representing Howard County.

Dr. Pass has twice been elected one of the Outstanding Young Women of America.

• • •

Merrill I. Berman, '62, Baltimore, Md., became board certified in Child Psychiatry in March, 1975.

William B. Weglicki, '62, Chestnut Hill, Mass., has been appointed Professor of Biophysics and Medicine, and Chairman of the Department of Biophysics of the Medical College of Virginia, Richmond, Va. He is currently Associate Professor of Medicine, Harvard Medical School and Peter Bent Brigham Hospital, Boston, Mass.

• • •

Raymond D. Bahr, '62, Baltimore, Md., Director of the Coronary Care System at St. Agnes Hospital, was honored by the hospital's Department of Medicine as their "Man of the Year".

Dr. Bahr received the award at the department's annual dinner meeting held in November 1974, at Hunt Valley Inn.

The award is presented each year to a member of the Department of Medicine for "outstanding contribution toward patient care and medical education". A plaque with Dr. Bahr's name inscribed thereon will hang in the doctor's lounge at the hospital.

Dr. Bahr is a summa cum laude graduate of the University of Maryland School of Pharmacy. After working approximately one year, he entered the University's School of Medicine. Following graduation, he completed a rotating internship at St. Agnes Hospital before working three years in cancer research with the U. S. Public Health Service. He served one year of residency in internal medicine at Baltimore City Hospital and was executive chief resident at St. Agnes in 1967-68.

He has served as Director of the Coronary Care System at St. Agnes since its inception in 1968. In the past six years, the coronary care unit has grown from two monitored beds to its current level of 12 intensive care beds in Phase I, Four beds in Phase II, and 31 Beds in Phase III. Dr. Bahr has also instituted the highly successful coronary rehabilitation program that has been used as a model by other hospitals.

Dr. Bahr plans to extend the coronary care system to the community in the form of lectures and programs. In the near future, he hopes to develop a Chest Pain Clinic through the Emergency Room where patients suffering chest pain can be examined and diagnosed quickly.

Dr. Bahr is a Fellow of the American College of Physicians and is certified by the American Board of Internal Medicine.

He is a former resident of Catonsville, but now resides in Howard County with his wife Patricia and their four children.

Gerald C. Kempthorne, '61, Spring Green, Wis., serves as the Chairman of the Committee on Grievances of the State Medical Society of Wisconsin. Dr. Kempthorne also became a Diplomate of the American Board of Family Practice in December, 1974.

• • •

Robert J. Myerburg, '61, Miami, Fla., is Professor of Medicine and Director, Division of Cardiology, University of Miami School of Medicine. Dr. Myerburg is active in basic and clinical electrophysiology research, with more than seventy publications to date. He is also a member of the Editorial Board of *Circulation*, the official journal of the American Heart Association, and has been elected to membership in the American Society for Clinical Investigation. Dr. Myerburg was board certified by the American Board of Internal Medicine in 1968 and by the Subspecialty Board in Cardiology in 1970.

• • •

Lewis H. Richmond, '58, San Antonio, Texas, is board certified in Psychiatry and a Fellow of the American Psychiatric Association. He is also Clinical Associate Professor of Psychiatry at the University of Texas School of Medicine at San Antonio, Director of Training of San Antonio Group Psychotherapy Institute and the author of several publications.

• • •

Sebastian J. Gallo, '57, Middletown, Conn., has been appointed Chairman of the Pathology Department and Director of Laboratories at the Middlesex Memorial Hospital, a University of Connecticut Affiliated Hospital.

• • •

J. Nelson McKay, '52, Baltimore, Md., is a Diplomate of the American Board of Family Practice and a Fellow of the American Academy of Family Physicians. Dr. McKay holds an appointment as Clinical Associate Professor of Family Practice at the University of Maryland School of Medicine and is President-Elect of the Maryland Chapter of the American Academy of Family Physicians.

• • •

Leonard Bachman, '49, Philadelphia, Pa., Health Services Director, Commonwealth of Pennsylvania, was appointed to the post of Secretary of

Health by Governor Milton J. Shapp. Dr. Bachman will retain his post as Health Services Director as he heads up the 2,000 employee Health Department. In making the appointment, the Governor referred to Dr. Bachman's "continual attempts and meaningful accomplishments in the past three years to improve the health care delivery system in Pennsylvania."

Dr. Bachman is a Professor of Anesthesia at the University of Pennsylvania Medical School and a Consultant in Anesthesia to the U.S. Naval Hospital in Philadelphia.

• • •

Guy K. Driggs, '46, Dallas, Texas, was elected to the Board of Directors of the Dallas County Medical Society and the Dallas County Medical Plan. He is also a member of the House of Delegates, Texas Medical Association.

• • •

Frank J. Ayd, Jr., '45, Baltimore, Md., has been elected an honorary member of the Titus Harris Society by the unanimous vote of the officers and councillors. This was announced by Society President, Dr. Pete C. Palasota of Galveston, during the Fifteenth Annual Meeting of the Society in San Antonio in January, 1975, at which time Dr. Ayd delivered the annual Titus Harris Memorial Lecture. Dr. Ayd is Director of Professional Education and Research at Taylor Manor Hospital.

• • •

I. Phillips Frohman, '37, Washington, D.C., has been informed that he successfully completed the requirements of the American Board of Family Practice in the certifying examination in October, 1974 and is now a Diplomate of the American Board of Family Practice.

• • •

Samuel Steinberg, '36, Philadelphia, Pa., has established at the University of Maryland School of Medicine, the GOLD STEINBERG MEMORIAL STUDENT LOAN FUND. The purpose of this fund is to provide loans to deserving 3rd and 4th year students in the School of Medicine who are in the lower third of their class.

• • •

Philip Owen, '35, Jamesburg, N.J., has retired from the active practice of medicine in Union, N.J. After a short vacation, Dr. Owen expects to enroll

in "Project U.S.A." (working in rural areas with critical medical personnel shortages). Dr. Owen has also made application to "Amdoc", which offers medical opportunities in areas of need, domestic and foreign.

• • •

Joseph Nataro, '25, Ft. Lauderdale, Fla., will be celebrating his 50th anniversary of graduation from the University of Maryland School of Medicine. Five members of Dr. Nataro's family are graduates of the University of Maryland School of Medicine. They are: Maurice Nataro, Class of 1937, his brother; and sons, Jerome D. Nataro, Class of 1946; Frank Nataro, Class of 1955; and Joseph Nataro, Class of 1959. Dr. Nataro is presently retired and resides in Ft. Lauderdale.

• • •

Thomas B. Turner, '25, Baltimore, Md., was honored at the Biennial Meeting of the Johns Hopkins Medical and Surgical Association in March, 1975. Dean Emeritus of the Medical Faculty of the Johns Hopkins University School of Medicine and a former recipient of the University of Maryland Medical Alumni Association's Honor Award and Gold Key, Dr. Turner also recently authored *Heritage of Excellence: The Johns Hopkins Medical Institutions 1914-1947*. A portrait of Dr. Turner was dedicated and accepted by Steven Muller, President of the University and Hospital.

Albert Grant, M.D., Instructor — REHABILITATION MEDICINE (appointment effective 1-1-75)

Ellen Ann Millan, M.D., Instructor — ANESTHESIOLOGY (appointment effective 1-1-75)

Louis W. Miller, M.D., Instructor — MEDICINE (joint appointment effective 11-1-74)

Robert H. Gilman, M.D., Assistant Professor — MEDICINE (promotion effective 12-1-74)

John C. Rhead, Ph.D., Assistant Professor — PSYCHIATRY (appointment effective 11-1-74)

Gerald G. May, M.D., Clinical Assistant Professor — PSYCHIATRY (appointment effective 1-1-75)

C. James Duke, M.D., Assistant Professor — REHABILITATION MEDICINE (appointment effective 1-1-75)

Jane B. Terry, M.D., Clinical Instructor — PSYCHIATRY (appointment effective 9-10-74)

Miriam Sandbank, M.D., Clinical Associate Professor — PATHOLOGY (appointment effective 11-1-74)

Gary A. Belaga, M.D., Clinical Instructor — NEUROLOGY (appointment effective 1-1-75)

Matti A. Pentilla, M.D., Assistant Professor — PATHOLOGY (appointment effective 7-1-74)

Howard D. Dorfman, M.D., Associate Professor — SURGERY (appointment effective 1-1-75)

Sohrab Mobarhan, M.D., Assistant Professor — MEDICINE (appointment effective 1/1/75)

Roland S. Aronson, M.D., Assistant Professor — PATHOLOGY (appointment effective 1-1-75)

Estela M. Abosch, M.A., Clinical Instructor — PSYCHIATRY (appointment effective 1-20-75)

Elena M. delCampillo, B.S., Associate — BIOPHYSICS (appointment effective 2-1-75)

Syed M. Hasan, M.S., Research Associate — BIOCHEMISTRY (appointment effective 4-28-75)

FACULTY NEWS

New Appointments, Promotions & Resignations

Henry A. Spindler, M.D., Instructor — REHABILITATION MEDICINE (appointment effective 1-1-75)

Alfred B. Rosenstein, M.D., Instructor — PEDIATRICS (appointment effective 11-15-74)

Tai-San Huang, M.D., Instructor — REHABILITATION MEDICINE (appointment effective 1-1-75)

Fulya O. Nuri, M.D., Instructor — PEDIATRICS (appointment effective 11-15-74)

Paul East, M.D., Assistant Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 12-1-74)

Bernard R. Shocket, M.D., Assistant Professor — FAMILY MEDICINE (joint appointment effective 11-1-74)

Ruth M. Latimer, M.S., M.Ed., Associate Professor — PHYSICAL THERAPY (reinstatement after leave of absence, effective 12-9-74)

Milton Strauss, Ph.D., Consultant — PEDIATRICS (appointment effective 11-1-74)

Judith Strauss, M.D., Consultant — PEDIATRICS (appointment effective 9-11-74)

Howard M. Maziar, M.D., Instructor — PSYCHIATRY (appointment effective 7-1-74)

Harvey Gross, M.D., Instructor — FAMILY PRACTICE (appointment effective 2-1-75)

Neil Meade, M.D., Instructor — FAMILY PRACTICE (appointment effective 2-1-75)

Eric A. Katkow, D.D.S., Instructor — PEDIATRICS (appointment effective 1-12-75)

Daniel Freedenburg, Jr., M.D., Instructor — PSYCHIATRY (appointment effective 7-1-74)

Gary Nyman, M.D., Assistant Professor — PSYCHIATRY (promotion effective 2-1-75)

Moises Fraiman, M.D., Associate — SURGERY (appointment effective 1-1-75)

Noel D. List, M.D., M.P.H., Assistant Professor — MEDICINE (joint appointment effective 11-1-74)

Gilcin F. Meadores, III, M.D., Instructor — FAMILY MEDICINE (appointment effective 11-1-74)

Ellen R. Wald, M.D., Assistant Professor — PEDIATRICS (appointment effective 1-1-75)

Ahmad Salahuddin, Ph.D., Visiting Associate Professor — BIOCHEMISTRY (appointment effective 12-1-74)

Denise M. Harmening, B.S., Instructor — PATHOLOGY (MEDICAL TECHNOLOGY) (appointment effective 1-1-75)

Frank J. Lebeda, Ph.D., Research Associate — PHARMACOLOGY & EXPERIMENTAL THERAPEUTICS (appointment effective 1-1-75)

Mrs. Elena I. Manzanera, M.S., Assistant Professor — PSYCHIATRY (appointment effective 12-18-74)

Resignations

Arthur J. Lesser, M.Ph., Professor — PEDIATRICS, resigned.

Morton Katz, Instructor — PEDIATRICS, resigned.

Marilyn Kay Cosby, D.D.S., Instructor — PEDIATRICS, resigned.

Robert Ollodart, Associate Professor — SURGERY, resigned 12-31-74.

Joseph Reidy, Clinical Instructor — PSYCHIATRY, resigned.

Martin Gross, Assistant Professor — PSYCHIATRY, deceased.

Jaime Carlo, Instructor — PATHOLOGY, resigned.

Arthur J. Hartz, Research Associate — SOCIAL & PREVENTIVE MEDICINE, resigned.

Seymour Weiner, Associate Professor — RADIOLOGY, resigned.

Barbara Bourke, Instructor — PATHOLOGY, resigned 1-1-75.

David L. Heeren, Instructor — FAMILY MEDICINE, resigned 7-23-74.

Melvin D. Reuber, Associate Professor — PATHOLOGY, resigned 12-31-74.

Dorcas Padget, Research Associate — SURGERY, deceased.

ERRATUM

In the February, 1975, issue of the *Bulletin* under the Faculty News section, it was reported that Lois M. Roeder, Assistant Professor, Department of Pediatrics had resigned, effective October 4, 1974. Although Dr. Roeder is presently a member of the research staff of the Rosewood Hospital Center, she still retains her faculty appointment as Assistant Professor in the Department of Pediatrics, University of Maryland School of Medicine. Sincere apologies are extended to Dr. Roeder.

ALUMNI NEWS REPORT

TO THE BULLETIN:

I would like to report the following: _____

SUGGESTIONS FOR ITEMS

American Board Certification

Change of Office or Address

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Academic Appointment

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Photographs and Artifacts

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Send To: George H. Yeager, M.D.
Editor, Alumni Bulletin
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School of Medicine
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August, 1975

BULLETIN

university of maryland school of medicine



SPECIAL NUCLEAR MEDICINE ISSUE

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BULLETIN

university of maryland school of medicine

August, 1975

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Robert O. Torrence
cover photo

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DIVISION OF NUCLEAR MEDICINE

UNIVERSITY OF MARYLAND HOSPITAL

INTRODUCTION:

Nuclear Medicine is a medical specialty in which radioactive tracers are used in the diagnosis and treatment of disease. Its origin dates back to the late 19th century when pioneers in the field discovered "X-rays" and the phenomenon of "radioactivity". Since that time technological advances have been successfully combined with contributions from many scientific fields to produce the broad-based discipline of modern Nuclear Medicine. Its current applications at a University Hospital Center, which are many and varied, range for example, from in-vivo studies of the brain to in-vitro studies of lymphocyte function.¹

Nuclear Medicine at the University of Maryland Hospital had its beginning close to 25 years ago. It began in classical fashion with studies of the thyroid gland using Iodine-131. As the field progressed, so the specialty advanced at University of Maryland Hospital. Rapid progress has been made in the past 3 years and the Division of Nuclear Medicine can now be considered an academic unit providing high quality diagnostic patient care studies. Teaching and research activities of the Division have been highly successful; new programs implemented, and original basic science and clinical research developed. Patient scanning procedures have doubled in the past two years. A significant proportion of the increase can be attributed to studies for cancer detection and followup associated with relocation of the Baltimore Cancer Research Center to the University of Maryland Hospital. Approximately forty percent of the studies performed in the Division are outpatient referrals. The remainder are inpatient studies which means that based on total annual admissions to the Hospital over the past 3 years, an average of approximately 1 in 3 patients admitted received a diagnostic Nuclear Medicine study. This is in keeping with the findings throughout the country at other Hospital Centers with Nuclear Medicine facilities.

Despite what amounts to an extensive use of radioactive tracers in clinical diagnosis, the nature of the specialty is not well understood. Only

within the past few years has a general impact been made through teaching at the undergraduate level in Medical Schools.

In essence, Nuclear Medicine is the study of human physiology in health and disease. As such, it is a study of bodily functions and their derangements. This aspect of Nuclear Medicine deserves emphasis since it is in contrast to the study of body structures accomplished using x-rays in Radiology. The "tools of the trade" of the Nuclear Medicine physician are the radiopharmaceutical and the imaging instrument. Using these he has the ability to determine regional organ and metabolic function in a non-invasive manner. A sound understanding of the radiopharmaceutical requires knowledge of the metabolic pathway it follows and the function it measures. Equally important is knowledge of the physical characteristics of the radionuclide label such as its half life and energy emissions.

Of the several products of radioactive decay, only gamma photons are sufficiently penetrating to be useful in in-vivo imaging procedures. As a consequence, radiopharmaceuticals for imaging must be labeled with gamma emitting radionuclides. Not all radionuclides emit gamma rays and of those that do, only a few can meet the additional requirements imposed by the limitations of currently available imaging instruments and a concomitant necessity to keep the radiation dose to the patient as low as possible.

For the Nuclear Medicine physician, a sound knowledge of radiopharmacy, instrumentation, and radiation dosimetry is only a beginning. Clinical acumen is essential; and must be matched with knowledge of the pathophysiologic processes of disease and the place which the radiotracer test occupies in the diagnostic process. The clinical utility of many Nuclear Medicine studies is well established. Studies of thyroid function, brain scanning for detection of vascular and neoplastic disease and measurement of regional lung perfusion and ventilation in thromboembolism or parenchymal lung disease are commonly encountered procedures. Nonetheless individual patient care is rendered optimally and nuclear medicine used most appropriately when the referring physician and the Nuclear Medicine specialist act in close liaison in a consultative manner.

¹Readers are referred to an excellent, recently published text for the non-specialist, 'Nuclear Medicine'. Edited by Henry N. Wagner, Jr., M.D., 1975. Hospital Practice Publishing Co., Inc. Publishers, New York, N.Y.

In the following pages some of the basic principles of radiopharmacy and instrumentation are elaborated along with an outline of the type of work performed in the Division. While patient care is the foremost responsibility, this Hospital Center is part of an academic Institution and teaching and research are also important priorities. Since the distinction of a University Center resides in the scholarship and creativity of its Faculty, the research activities of the members of the Division are emphasized.

INSTRUMENTATION

Few medical specialties are as heavily dependent upon and as severely limited by the state-of-the-art of the available instrumentation as is Nuclear Medicine. The problem is perhaps best understood by examining the most sophisticated devices now employed in this specialty, namely, those instruments which produce images of the distribution of a radionuclide within a patient.

The gamma rays from which the image is constructed are emitted from certain specific radioactive drugs (i.e., "radiopharmaceuticals") previously administered to the subject and which, at the time of examination, have become localized in regions, organs or lesions for which the drug has specific affinity. Since radioactive decay cannot be turned on and off at will, the physician must administer, in advance, a quantity sufficient to produce a reasonable counting rate at some future time when the radioisotope has had a chance to become concentrated in the "target" organ or lesion. The required time can be as short as seconds or minutes, but more often is a matter of an hour or longer, sometimes as much as several days. Whatever the time required, the administered dose to the patient is limited to that which will produce a tolerable radiation dose, not only from activity present at the time of examination, but also from the accumulation of all decay events both before and after that time for as long as the radioactivity persists. Because of this dose limitation, the activity available to the image-making device is limited to that which will produce a count density of 500 to 1000 counts per square centimeter of image, even when using the most sensitive detectors. Such images are visibly imperfect reproductions of the real object in that a person with average visual acuity can perceive within them purely statistical fluctuations in density that make it difficult to distinguish local differences that may (or may not) be due to pathology. It is therefore not possible to portray the *in-vivo* distribution of radioisotopes in humans in regions of dimensions

much smaller than approximately one centimeter. Even to achieve this modest degree of spatial resolution requires that the imaging device be carefully adjusted to achieve its very best level of performance. The available imaging devices come in two varieties; moving detector "scanners" and stationary detector "cameras".

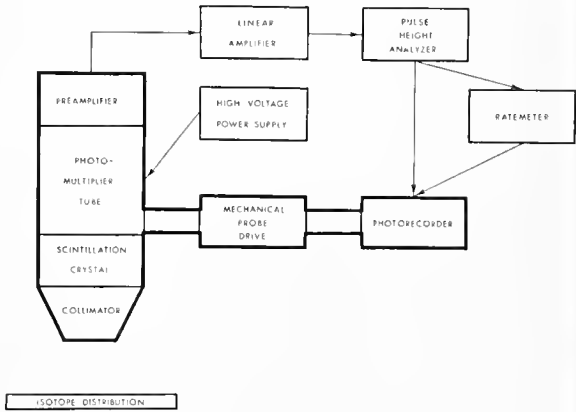


FIGURE 1: Components of a Rectilinear Scanner

THE RECTILINEAR SCANNER

The first imaging device to be used in Nuclear Medicine was the rectilinear scanner. The components of this instrument are shown in Figure 1. The device contains a focused collimator which consists of a cylindrical piece of lead in which a number of converging holes have been drilled. The bores of the holes are all aimed at some point in front of the collimator, the point of convergence being called the "focal point". If the collimator is perfect, gamma photons are most likely to pass through the collimator if they originate from its focal point.

Behind the collimator is a sodium iodide scintillation crystal. Gamma photons that reach the crystal through the collimator produce scintillations (i.e., minute flashes of light) that are detected by the photomultiplier (PM) tube optically coupled to the rear face of the crystal.

These components, together with a preamplifier, are contained within the 'probe' that is driven transversely across the area of interest by the probe drive. Mechanically linked to the probe, so as to exactly follow its motion, is a small light pen that exposes a sheet of x-ray film (contained within the photorecorder) to a flash of light each time a count is detected by the crystal. In this way, a latent image is produced on the sheet of film. The spatial location of activity produced by a gamma emitting radionuclide is established by reference to the then current location of the focal point of the collimator, which point describes a scan line during each traverse. At the end of any

particular traverse, the drive mechanism indexes longitudinally so that the next traverse produces a scan line parallel to the first, but some distance away. Repetition of this process produces a 'rectilinear' scan of the whole area of interest.

The rate at which a traverse is made is user-adjustable, subject to certain constraints. High scanning speeds have the effect of reducing the number of detected counts per unit scan length, increasing statistical deviations to the detriment of spatial resolution. Slow speeds may require an unreasonably long total scanning time. Evidently, the optimum scanning speed depends upon the observed counting rate and thus represents a compromise between the best statistics and spatial resolution on the one hand and the shortest total scanning time on the other. Even with the benefit of the counting rates provided by some of the 'best' radiopharmaceuticals (e.g., those synthesized from six hour ^{99m}Tc), it is not uncommon for a lung scan to take twenty minutes and a whole body bone scan, an hour. Within any given maximum acceptable scanning time, image quality can be improved only if the counting rate can be increased by increasing either the sensitivity of detection or the dose of radionuclide administered to the subject or both. Such is the present state of the art that neither remedy offers much prospect for image improvement when the rectilinear scanning system is used.

THE ISOTOPE CAMERA

Isotope cameras are stationary-detector imaging devices. Most of them employ a large diameter, parallel hole collimator and an equally large crystal scintillation detector. The first camera system to achieve wide distribution and the one which still dominates the field is the Anger camera, named for its inventor, Hal O. Anger of the Donner Laboratory in Berkeley, California.

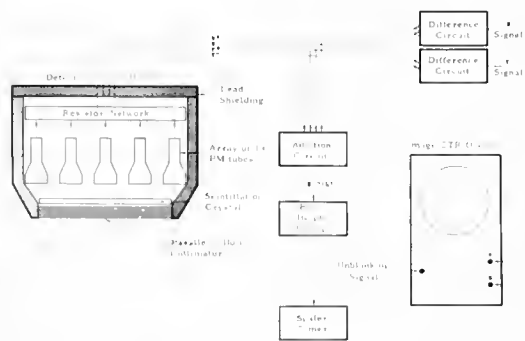


FIGURE 2: Components of the Anger Scintillation Camera

The detector in this camera (see Figure 2) is a 1/2 inch thick by 11 inch in diameter sodium iodide crystal. Viewing the back surface of the crystal from a small standoff distance is a hexagonal array of nineteen PM tubes. When an incident gamma ray produces a scintillation somewhere within the crystal, the nearest PM tube receives the most light and generates the largest output signal. Tubes more distant produce smaller signals. By noting the relative signal strengths from all nineteen tubes, it is possible to synthesize X and Y position signals of amplitudes proportional to the spatial coordinates of the original scintillation. At the same time, the total output of all tubes is summed to form the 'Z' signal pulse which has a height proportional to the intensity of the detected scintillation. The 'Z' pulse is checked by a pulse height analyzer which is set to accept only pulses having the known intensity of the particular gamma rays being counted.

The display unit of the camera is a cathode ray tube. The electron beam within the tube is normally blocked from the tube face by a biased grid. The X and Y position signals are used to deflect the beam. If the coincident Z signal is of the correct height to pass the pulse height analyzer, the bias is momentarily removed, permitting a brief flash of light to appear on the phosphorescent face of the tube at a position corresponding to the location of the original scintillation within the crystal. The whole process requires only a few millionths of a second, after which the system is ready for the next scintillation. This fast signal processing permits a large number of counts to be accumulated in a short period of time. An image is produced by accumulating some pre-set number of counts either by using a cathode ray tube with a persistent phosphor or, more commonly, by taking a time-exposure photograph of the tube face.

The introduction of isotope cameras represents an important breakthrough in nuclear medical imaging. Although rectilinear scanners are still useful, the unavoidable difficulty with that system is the long time required to scan the area of interest. Cameras, on the other hand, view the entire field at once so that the time required to produce an image of acceptable density is limited only by the overall counting rate. Images of diagnostic value can be obtained in as little as one second, permitting the visualization of functions or processes of very short duration such as, for example, the flow of blood through an organ. The fast imaging available from cameras also opens up the prospect for the use of ultrashort lived radionuclides to reduce the post-test radiation dose to the patient thus permitting higher administered doses of

radiopharmaceuticals which will, in turn, provide improved images.

Finally, for reasons beyond the scope of this brief discussion, it seems likely that the major advances in Nuclear Medical imaging in the latter half of this decade will come from the application of computers to the problems of image display, analysis and interpretation. This Division plans to be in the forefront of that promising line of research.

RADIOPHARMACEUTICALS

Radiopharmaceuticals are radioactive drugs whose distribution, metabolism and elimination can be followed within the body by virtue of their radioactivity. The emitted radiation can be used to construct images which yield diagnostic information about regional metabolic function. An interesting example is demonstrated by the use of radiopharmaceuticals to measure regional bone function. The radiopharmaceutical used is the biochemical, sodium pyrophosphate labeled with the radioactive atom, Tc99m. The resulting radiopharmaceutical is deposited on the surface of the bone in proportion to either regional blood flow to the bone or regional osteogenesis. Examples of the type of images that one can obtain are shown in Figure 3 where areas of increased radiopharmaceutical concentration are depicted in black. In both patients, the radiopharmaceutical was administered intravenously, and its distribution within the body determined three and a half hours later.

While the patient in Figure A shows nearly symmetrical uptake of the radiopharmaceutical, the patient in Figure B shows quite clearly several areas of increased radiopharmaceutical concentration resulting from increased bone metabolism. Such determinations of regional bone function

are indicated 1) in the management of patients with known malignancies 2) in the determination of the extent of bone disease 3) in the location of suitable biopsy sites and 4) in the planning of radiotherapy portals.

It is apparent that these nuclear medicine bone scans lack the fine structure and detail available through conventional radiography. The studies however, yield information which is unavailable radiographically in that function rather than density is being measured. The two studies shown in Figure 1 will appear identical radiographically if there is no structural alteration present. This is quite often the case since altered metabolic activity invariably precedes structural alterations.

Sodium pyrophosphate is but one of the many molecules that has been radiolabeled with Tc99m. Other examples include Tc99m labeled diethylenetriaminepentacetic acid for the measurement of renal function, Tc99m labeled tetracycline for use in detecting myocardial function, Tc99m labeled di-hydro-thioctic acid for the measurement of hepato-biliary function, and Tc99m labeled sulfur colloid for the measurement of regional R.E.S. function. Although other radioactive atoms such as I-131 and I-125 are of great value to nuclear medicine, the majority of the diagnostic studies are performed with Tc99m labeled products in various chemical forms. This preference is due to the short half-life of Tc99m, 6.0 hours. In consequence, the radioactive drug within the patient will decay quickly, confining the majority of this patient's radiation exposure to the day of the test. In this manner, diagnostic information is obtained while subjecting the patient to only minimal radiation exposure.

Technetium-99m is one of many radionuclides which may be obtained by means of a generator system. A generator is a lead shielded container in which a 'parent' radionuclide, in this case Molybdenum-99, is maintained on inert-supporting material. The Molybdenum-99 decays with a physical half-life of 67 hours and produces its "daughter" nuclide, Technetium-99m. This decays in turn with a physical half-life of six hours to produce Technetium-99. The Technetium-99m is eluted from the generator under sterile conditions as Technetium-99m pertechnetate. Such a system facilitates the problem of transportation which is a major difficulty and a limitation to the use of many shortlived radionuclides.

Once the Technetium-99m has been eluted from the generator, radiopharmaceuticals are rapidly compounded using component materials which are sterile and pyrogen-free. Before the radiopharmaceuticals may be used, quality con-

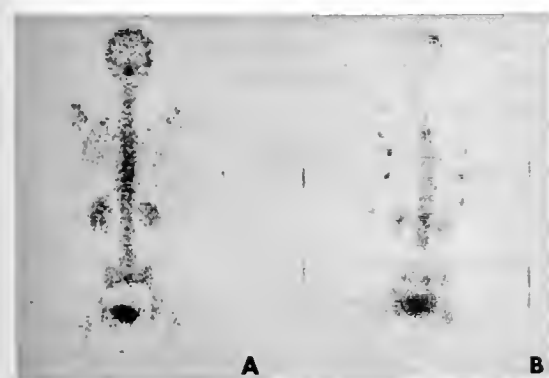


FIGURE 3A, 3B: Bone scans of two patients taken 3 hours after the IV injection of 15 mCi. of Tc-99m Diphosphonate

trol procedures are necessary to ensure the product may be utilized for intravenous injection.

Compounding and dispensing requirements are becoming evermore stringent as the diagnostic tests become increasingly more sophisticated. An example of this is the use of radioiodinated autologous fibrinogen. This radiopharmaceutical, developed at the University of Maryland, requires the isolation and radiolabeling of the patient's own fibrinogen, a step necessitated by the possibility of serum hepatitis transmission between potential fibrinogen donor and patient. It has been shown to be of diagnostic value in the early detection of deep vein thrombosis and in the early diagnosis of renal transplant rejection. Despite this clinical utility, its use is limited to those few hospitals which have the facilities and personnel to perform the aseptic manipulations needed in order to isolate fibrinogen from patient's plasma and subsequently, to label it with radioactive Iodine-131.

Other examples of sophisticated radiopharmaceuticals include Tc99m labeled albumin for blood pool scanning, Co57 labeled Bleomycin for the detection of certain soft tissue tumors, Iodine-131 labeled Streptokinase for the detection of thrombosis, and I-131 labeled iodocholesterol for the determination of regional function within the adrenal glands.

Table 1 shows a list of commonly used radiopharmaceuticals, the mechanism by which they localize in the target organ, and the absorbed radiation dose to the whole body which ensues.

**SERVICE, TEACHING & RESEARCH
IN THE DIVISION:**

SERVICE:

In-vivo imaging procedures account for the largest portion of the Divisional workload. The most frequently performed procedure is the cerebral isotope angiogram combined with a multiple view static brain scan. (Figure 4)

A:

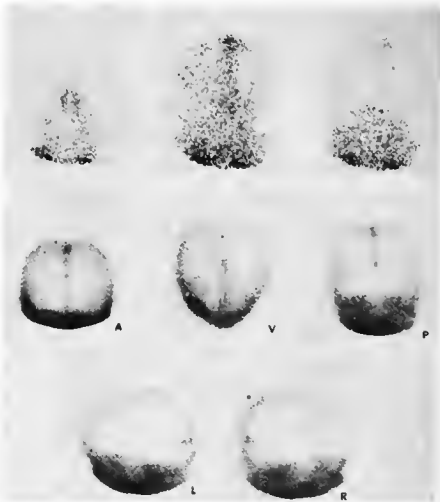


FIGURE 4A: Anterior view flow study and brain scan: The upper frames show normal flow of the tracer Tc-99m pertechnetate through the cerebral hemispheres. The lower frames show a normal five-view brain scan.

TABLE 1 COMMONLY USED RADIOPHARMACEUTICALS

RADIOPHARMACEUTICAL	MECHANISM OF LOCALIZATION	WHOLE BODY RADIATION DOSE
^{99m} Tc-PERTECHNETATE	EXTRAVASCULAR TRACER; ACTIVELY CONCENTRATED IN THYROID GLAND	10-200mRADS (BRAIN SCAN) 3-60mRADS (THYROID SCAN)
^{99m} Tc-SULFUR COLLOID	PHAGOCYTIZED BY RETICULOENDOTHELIAL CELLS	30-60mRADS
^{99m} Tc-PYROPHOSPHATE	INCORPORATED BY EXCHANGE DIFFUSION INTO IONIC LATTICE SURROUNDING BONE	100mRADS
^{99m} Tc-MACROAGGREGATED ALBUMIN	TRAPPED IN LUNGS CAPILLARIES BY CAPILLARY BLOCKAGE	40mRADS
¹³¹ I-SODIUM IODIDE	ACTIVELY CONCENTRATED IN THE THYROID GLAND	25-175mRADS (THYROID SCAN) 1-7mRADS (THYROID UPTAKE)
⁶⁷ Ga-GALLIUM CITRATE	INTRACELLULAR LYSOSOMES	1000mRADS

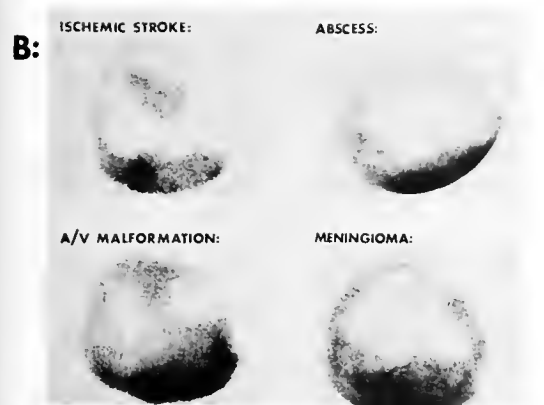


FIGURE 4B: Four selective views are shown containing images of different lesions diagnosed by brain scan.

The procedures which are increasing most rapidly in frequency are the Tc-99m diphosphonate bone scan used to survey for skeletal metastases and the Gallium-67 citrate scan for the detection and followup of patients with various cancers. Examples are shown in Figure 3 & Figure 5.

Table 2 shows the most frequently performed studies in ranking order and the principle clinical indications for each study.

The relative simplicity of performing Nuclear Medicine studies and their non-invasive nature makes them useful screening studies. Their sensitivity frequently equals more invasive or hazardous studies such as angiography. It is logical,

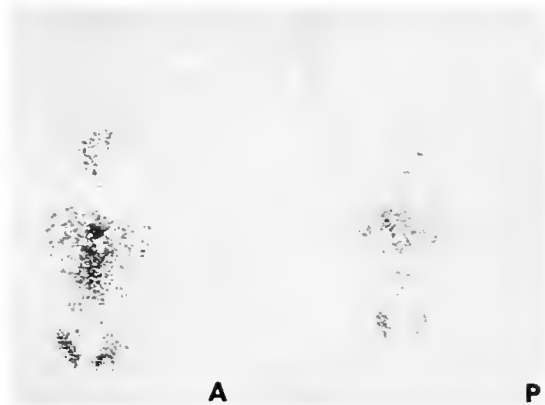


FIGURE 5: Whole body Gallium-67 citrate scan of patient with Hodgkin's disease: The radiopharmaceutical can be seen in normal reticuloendothelial structures, and there is abnormal accumulation in lymph nodes in the supraclavicular area, the mediastinum, the para-aortic region, and the inguinal areas.

therefore, to choose a brain scan and cerebral isotope angiogram in patients eg. with head trauma, or exhibiting neurological dysfunction as a preliminary study to contrast angiography. Similarly a perfusion lung scan and Xenon-133 ventilation study are necessary prerequisites to pulmonary angiography in patients with suspected pulmonary embolism. Nuclear Medicine studies are also indicated to follow resolution or deterioration of a lesion or function in response to therapy. The degree of perfusion deficit remaining in a

FREQUENTLY PERFORMED NUCLEAR MEDICINE STUDIES AND THEIR CLINICAL INDICATIONS

STUDY

IMAGING STUDIES

Brain scan & flow
Liver-spleen scan

Bone scan
Gallium study
Thyroid scan
Lung scan & Xenon ventilation
Renal scan and flow
Cisternogram

NON-IMAGING STUDIES

Thyroid uptake & function studies
I-131 Therapy
Red cell mass
Schilling test ($^{57}\text{Co-B}_{12}$)
Ferrokinesis

CLINICAL INDICATION

Detection of cerebrovascular disease, primary and metastatic neoplasm
Suspected primary or metastatic lesions, abscess—intrahepatic or sub-diaphragmatic
Metastatic survey, observation of response to therapy
Detection of soft tissue tumors, observation of response to therapy
Detection of nodules, differentiation between "hot" and "cold"
Assessment of regional lung perfusion and ventilation
Assessment of renal flow, parenchymal function and excretion
Hydrocephalus, cerebral atrophy, assessment of shunt function

Evaluation of thyroid function
Treatment of thyroid cancer
Evaluation of anemias

patient who has recovered from pulmonary embolism is easily assessed by repeat studies prior to the patient being discharged. It provides an important baseline for future clinical management in a syndrome which is notorious for its recurrent nature. Particular nuclear medicine studies provide unique information. Reference has already been made to bone scans which can reveal changes in bone metabolism long before any structural defects can be appreciated with radiographs. The cancer seeking radiopharmaceuticals are another example. Currently Ga-67 citrate is used but other suitable radiopharmaceuticals are likely to become available. Function is uniquely revealed using in-vivo and in-vitro studies of the thyroid, ferrokinetic studies, and the Schilling test are other examples. In-vivo kinetic studies and in-vitro studies account for the remaining service workload. These are also shown in Table 2 in similar fashion to the imaging procedures.

It is now a common occurrence for the same patient to require multiple studies, in particular when cancer surveys are to be performed. Thus brain scan, bone scan, liver scan, and gallium scan may all be indicated. It is of the utmost importance that such a battery of studies be appropriately scheduled from a diagnostic, dosimetric, and utilization viewpoint if optimal patient care is to be rendered. Of equal importance is the careful planning of other diagnostic procedures. The diagnostic process is easily abused by blanket requests for multiple studies in different labs. Each and every test whether an isotope test or other should be subject to scrutiny and logical analysis before the next diagnostic step is taken. The potential hazards of unnecessary radiation exposure, conflicts in scheduling, and incompatibility of tests such as thyroid function studies following radiocontrast examinations can be avoided by close liaison and consultation between the interacting physicians.

TEACHING:

The Division actively participates in the Departmental teaching programs and the University Post-graduate Education program. Overall between 20-25% of the Divisional effort is directed to teaching. Particular to the specialty of Nuclear Medicine, the Division has instituted a graduate program in Nuclear Science. The program is given as a basic and clinical program occupying the Fall & Spring semesters of each academic year. It is designed to accommodate the growing need for education and training in the use of radioactive materials in the Medical Institutions on Campus. Both didactic lectures or tutorials and laboratories

are part of the program which is designed to accommodate graduate students and investigators of widely differing backgrounds. In this sense, the program initiated in Spring 1975 appears to have succeeded, since the top places in class performance were occupied by Masters degree students from School of Pharmacy, Residents in Radiology, and Fellows in Nuclear Medicine.

RESEARCH

Use of radiotracers in biomedical research is so all pervading it is probably true to say that only a lack of imagination is the final limitation. In more practical terms, the research program of the Division is built around the strengths and interests of the Faculty, Fellows, and Associates from other disciplines working in collaboration.

Two important assets are peculiar to this University. The first is the School of Pharmacy through which a collaborative program in Radiochemistry and Radiopharmacy has been developed, and secondly, the University of Maryland Physics Department cyclotron at College Park which is a unique facility for the production of special new radionuclides such as Iodine-123.

Divisional research can be seen operating at three levels of activity. The first includes chemical and cellular studies, isotope production, and development of new radiopharmaceuticals. The majority of this work is carried out in the School of Pharmacy. The second involves in-vivo animal work to study pharmacokinetics, tissue distribution and safety studies. Much of this work is performed in the animal laboratory in the Bressler building shared with the Division of Cardiology. Since Nuclear Medicine is a diagnostic modality, a major end-point of its research is clinical utility, and this provides the third level of the research program conducted in the Division and with collaborators in the Medical and Dental Schools.

All members of the Division participate in research either as trainees, collaborators or investigators in their own right. This is exemplified by the fact that all the faculty members, Drs. Malcolm Cooper, James A. Quinlan, Michael D. Loberg, Edward U. Buddemeyer, and Miss Elizabeth Harvey, two of the fellows, Drs. Benedict A. Termini and James Ryan, the chief technician, Mr. Theodore Sorandes, and another technician, Mr. Marc Getka, are currently presenting research papers from the Division at National Meetings.

One successful piece of research which has been completed through all levels as described and took between two and three years, was the development of a rapid means of producing radioiodinated autologous fibrinogen. Practically

all members of the Division contributed, but the work was a major effort of Drs. Cooper, Loberg, and Quinlan. The need for such a radiopharmaceutical arose from the potential hazard of transmitting serum hepatitis when fibrinogen was obtained from pooled sources. Within one to two hours of receiving the patient's own blood, the Iodine-131 labeled autologous fibrinogen can be reinjected into the patient. It has proven of clinical value in the early diagnosis of renal transplant rejection. In collaboration with Drs. Robert Orlodart and Fuad Dagher from the Department of Surgery, Transplant Unit, clinical studies showing its efficacy have been completed. Rejection in the kidney is detected by observing an increased deposition of fibrinogen in the transplanted kidney. An example of the results of one such study is shown in Figure 6. Work with this radiopharmaceutical is continuing in collaboration with Dr. Frank L. Iber, Gastroenterology, and his associates to study fibrinogen metabolism in liver disease.

ACUTE REJECTION SUPERIMPOSED ON ACUTE TUBULAR NECROSIS

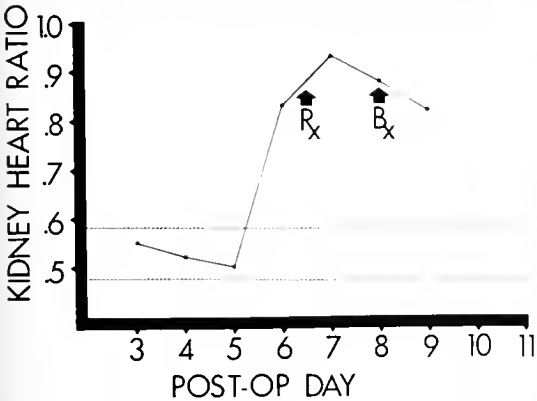


FIGURE 6: K.H.R. rejection crisis: This patient had oliguria and acute tubular necrosis, biopsy proven, after surgery. There was sudden accumulation of fibrinogen on the sixth day, treatment was started, and a biopsy on the following day confirmed the presence of acute rejection.

A major research effort has been made to develop radiolabeled synthetic drug analogs, the subject of much current interest and speculation since the work was first announced early in 1975. This has been the principal work of Dr. Michael Loberg as a collaborative effort between the Division and the School of Pharmacy, including Dr. Patrick Callery in Medicinal Chemistry.

A great deal is known about many drugs, how they act and where they localize in the body. Investigators have sought many ways of utilizing this

information so the drugs may be made into radiopharmaceuticals and used in the diagnosis of disease. In this project a new method has been devised, which from preliminary data appears successful. Chemicals, known as chelates which bind metal ions have been incorporated into drug molecules to create synthetic analogs of the drugs. The metal ions used are specially chosen radioisotopes which allow the distribution of the

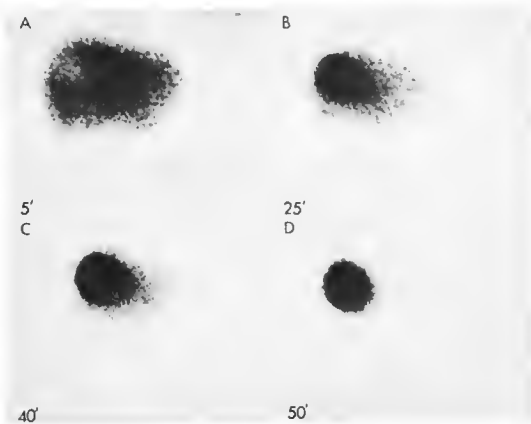


FIGURE 7A: Liver is clearly shown—first frame. Cold area is gallbladder. Subsequent frames show activity clearing liver and concentrating in the gallbladder.

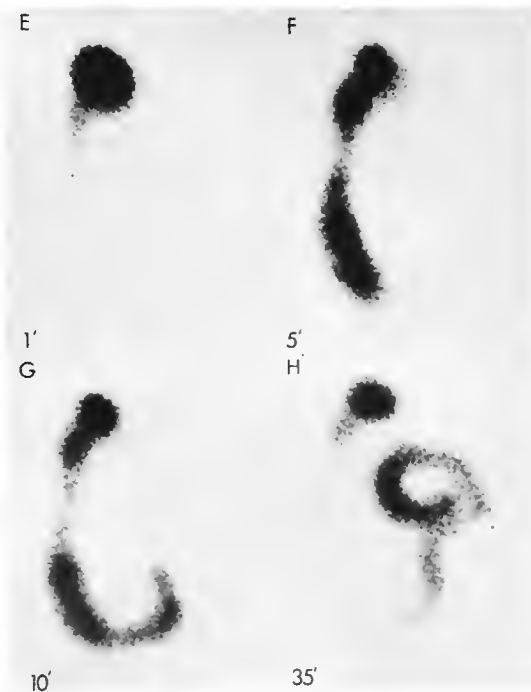


FIGURE 7B: 1 minute after cholecystokinin injection, the gallbladder empties and activity can be seen leaving the gallbladder and entering the small intestine.

radiopharmaceutical in the body to be recorded as an image, thus visualizing the target organ and observing its function. The drugs chosen are ones known to accumulate in the heart and certain forms of cancer. Successful completion of this work will be of value in the diagnosis of heart disease and cancer.

The first success from this effort has been the development of a new gallbladder imaging agent, Tc-99m-N[N'-(2,6-dimethylphenyl)carbamoylmethyl]iminodiacetic acid. The preliminary animal work showing its efficacy has been completed by Miss Elizabeth Harvey, and examples are shown in Figure 7. Approval for its use has been obtained, and clinical studies are now under way in collaboration with Dr. Iber and his associates.

There is a strong research interest in the Division in the application of radiotracer techniques in Cardiology. For the past two years, work has been in progress to develop new radiopharmaceuticals for myocardial imaging. As a collaborative effort with Dr. Leonard Scherlis, Dr. Benedict Termini has been investigating the role of the currently available Potassium-43 chloride. Working with Dr. Joseph McLaughlin in Cardiothoracic Surgery, this work has resulted in several presentations and publications concerning myocardial imaging in patients receiving saphenous vein bypass grafts for coronary heart disease.

Dr. E. U. Buddemeyer, who joined the Faculty in the past year, provided additional research

strength with his invention of a new method of in-vitro radiometric analysis. This work which he began at Johns Hopkins, is progressing rapidly, and provides a means of detecting and quantifying cellular metabolism. Collaborative efforts studying leukocyte and lymphocytic function, bacterial metabolism and identification and enzyme syntheses are underway.

The foregoing provides some idea of Nuclear Medicine at a University Center, in particular at our own University of Maryland. An abstract from an annual report of the Division best summarizes the situation.

"The concept upon which this Division operates is based on the notion that it is an integral part of a University Hospital and Medical School which are centers of academic excellence. The responsibility of the Division is to demonstrate this excellence by providing high standards of patient care, a milieu which is a learning experience, and an atmosphere in which new ideas are generated . . ."

ED. NOTE: Malcolm Cooper, M.D., Associate Professor of Medicine and Head of the Division of Nuclear Medicine wishes to acknowledge Dr. Edward U. Buddemeyer, Associate Professor of Medicine and Dr. Michael D. Loberg, Assistant Professor of Pharmacy and Medicine, for their contributions to this article.

DEAN'S MESSAGE

John M. Dennis, M. D.



Associated with all good medical schools is a strong alumni association. When the faculty and alumni are working closely together, the morale and attitudes of both groups are good. This is essential for institutional development as a medical school and its alumni must function as a single unit and not as a group of departments or individuals acting independently.

Many alumni returned for the 100th Anniversary Celebration of the Medical Alumni Association, and I was happy for the opportunity to discuss the many changes which are occurring in the curriculum and physical facilities. Dr. William Dunseath, 1973-74 Alumni Association President, presided over a group of interested alumni, representing many areas of the country, discussing the development of a stronger alumni association. I had the opportunity to speak to this group on what I felt the alumni could do for the School, as well as what the School could do for its alumni. Those assembled were most enthusiastic about strengthening the Medical Alumni Association, and it is hoped that many of the suggestions made at that meeting will develop to fruition.

In these times of changing economy, tightening federal and state budgets, changing educational requirements and greater influence of external forces upon medicine, it is essential that the School of Medicine reevaluate all of its programs to see what constructive changes can be made to improve them. I moved slowly during my first year as Dean, surveying the problems which are facing

this School and its faculty. During this time it has become apparent that the missions and goals and priorities of the School should be re-evaluated. Individual departments have their own goals and priorities, and far too frequently are acting as independent units rather than acting in concert with the institution. To look at the School's missions, goals and priorities, three Strategic Planning Committees have been developed to analyze the present status of the School in education, research and service and to make recommendations for change as well as develop mission statements, goals and priorities in each area.

Many have had the opportunity to see the vast expansion of the facilities in the School of Medicine and Hospital, and it is hoped that all of you will avail yourselves of the opportunity to visit your alma mater and see its new North Hospital Building and two new large medical school buildings. The curriculum is also changing with the earlier introduction of clinical material, the "tracking" of students, the stress on primary care and many other changing features in which many of you will be interested.

I hope that all of you will continue to make this an even stronger alumni association as the School needs your help in developing and maintaining an atmosphere of esteem for the young physicians and to help the School change the political, legal and economical attitudes which continue to erode medicine.

NURSING 1975: A NEW PRODUCT

A Story of an Integrated Curriculum

Elizabeth Hughes, Ph.D.

The faculty of the School of Nursing began revision of the baccalaureate curriculum in 1967 with review of the University's and the School's philosophy, examination of possible curriculum models and definition of broad objectives. Through intensive work, an integrated curriculum evolved. The description of the new integrated curriculum presented in these pages is a simulated reaction of the 1975 graduates—the second class to complete the new program.

We are a new product: the wrappings may be the same, but indeed, the product is different! We have changed, and are prepared to make an impact on the health care delivery system of the seventies and eighties. We feel "we've come a long way in a very short time."

The consumers of health care may still be expecting to see us primarily at the bedside because traditionally "our place" was at the bedside. And during the past few decades, we have been very much a part of critical care in towering medical complexes. But, we the class of '75 also see ourselves very much involved with health care action in employee health services, homes, schools, and day care centers.

Initially, the concept of "caring for" healthy people in relatively normal community settings was both disappointing and very puzzling. But by this time most of us are over the "cultural shock" we experienced two years ago as entering junior students at either the UMAB campus or the Walter Reed Army Institute of Nursing (WRAN) Center. We were informed that the same integrated curriculum was to be offered at the new Mercy Clinical Center (Baltimore) in the fall of 1974.

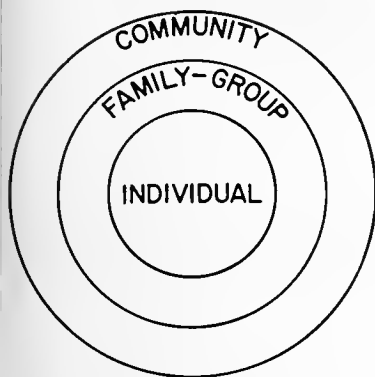
As college freshmen and sophomores, we studied both the biological and behavioral sciences as required for transfer eligibility to the upper division nursing program. For years, our image of nursing was caring for the critically ill patient who had just been wheeled into the emergency room. Of course, the white uniform and the many pieces of technical gear were parts of that image; the conditioning of Kildare and Casey. We assumed that giving injections, taking blood pressures, working with I.V. solutions were foci to our repertoire of nursing skills.

Although we had heard about the new curriculum at Maryland, its significance and impact

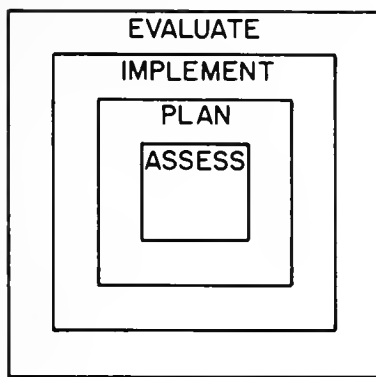


did not touch us until the first week of the first major clinical nursing course had passed. The fact that we would not be in a hospital very much for almost an entire semester had relevance; this was so contrary to our expectations. Although the rationale was "hard to buy," we listened.

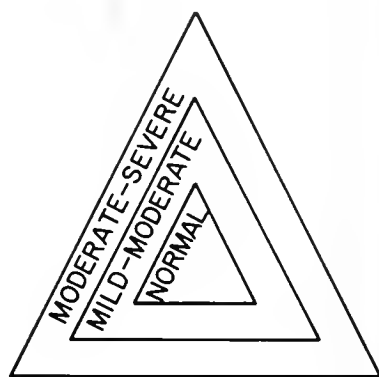
During the week we became aware of the fact that only approximately 15% of all people requiring health care are acutely ill, yet health care is required where people are, and most of them are not in hospitals. The single criterion in changing modes of health care is to provide the best possible care for those who need it. Thus the impetus for our new curriculum came from the desire to improve health care delivery through nursing practice. Our preconceived image of the medical-surgical or pediatric nurse was altered and expanded. Indeed, our mission was much broader; we began to see the increased dimensions of health maintenance and prevention of illness. As graduates we would be prepared to assist the individual and selected small groups at any point on the health continuum to attain and/or maintain their maximum level of health; to achieve this end, we were being prepared as nursing generalists via an integrated curriculum. During the junior and senior years, each of our four major clinical nursing courses focused on the following three concepts: stress and adaptation, nursing process, and the client(s) system (See Figure 1). When these three conceptual areas were



SYSTEM



NURSING PROCESS



STRESS

presented to us, initially "our" systems were themselves, in fact, in a state of stress, and in need of the nursing process!

The faculty have shared with us some of the hassles experienced in shifting and/or expanding the role and functions of nursing. Breaking away from traditional patterns for preparing professional nurses required not only utilization of a much wider group of clinical facilities but also new groupings of teachers and instructional methodologies. Thus we became the products of team teaching; the composition of the teaching team to which we were assigned varied with the types of clinical expertise most related to the goals of that particular course. The clinical facilities we used for clinical experience spanned the health continuum.

We began our first semester of the junior year by assessing basically healthy persons in schools,

industries, employee-health clinics and day care centers. We studied normal growth and development patterns of infants, children, adults and older adults, and learned to detect minor health problems before they became major ones. To detect minor health problems, we focused on such primary assessment skills as TPR and blood pressure, as well as beginning skills in auscultation and palpation. Particular attention was given to our communication skills. We began to see that nursing was people. In other words, our initial focus was on developing relationships and learning to talk with clients.

We vividly remember our families' and our friends' queries about "nursing school." A typical note from a friend was as follows:

"Dear Carol,

I was thinking about you in Trig the other day. Last I heard of you was the day you left for nursing school. You know I really don't understand why you decided to go into nursing. I just can't see you emptying bedpans and taking temperatures all of your life. I mean with liberation, I think I'd pick something a little more exciting. What can you get out of waiting hand and foot on someone all day—besides varicose veins, that is! Of course you might be having a good social life. I realize you must have tests and things, but don't you go crazy in that city? Well, I've got to be off . . . Take care and let me know what you've been up to!

Ann" (UMSN 1975, p.5)

By mid-semester of our junior year, our responses were:

"Dear Ann,

Sorry it's taken me so long to write, but I really have been pretty busy. I realize it's al-



most a year and there's so much I have to tell you. Nursing school has turned out to be a little different even from what I had expected. If I tell you a little about what it is like here in Baltimore, I think maybe your picture of nursing may change as ours has . . . We have found nursing to be people, all kinds of people. Believe it or not, for every five minutes I've spent taking a temperature, I've spent two hours talking with people. Did you know that as nurses most of our focus is on health? Half of our junior year is spent working with and teaching healthy people . . . Just last week we taught a healthy family about nutrition and the basic four . . . Of course basic skills, making beds and regulating I.V.'s also are a real part of nursing . . . I think one of the greatest things we are seeing is that nursing is teamwork. And you know what? I really like what I'm doing.

Carol¹² (UMSN 1975, pp. 7-16)

Interest continued to grow as we assessed the physical as well as the psychosocial aspects of the human being with whom we were interacting. Our knowledge of developmental needs (transferred from a concurrent course in Human Growth and Development) was applied to each subsystem within our client system, i.e. actuate, affiliative, eliminative, integrative, nutritive, protective, reproductive, and restorative. Using the eight subsystem framework, we gathered data on the clients, concepts of health and illness, their sets of priorities and values, and their spectrum of set factors and ecological input. Assessing strengths, exploring alternatives, establishing priorities and validating goals for health care with clients became an inherent part of the nursing process. In turn, we were involved with examining our own belief system in relation to the client's.

In the second semester of the junior year, we transferred our knowledge and skill of assessment and focused on planning and implementing nursing interventions with clients whose stress state was mild to moderate and of lengthy duration. In other words, our emphasis shifted from the well or "worried well" (first semester) to the health maintenance of people afflicted with chronic conditions such as heart or kidney disorders. The course, Pathophysiology and Its Pharmacological Implications, helped us to expand our science base, and make direct application to assessing clients with chronic health problems. Both inpatient hospital settings, including nursing homes, and community based settings such as schools for handicapped children were used to gain the knowledge and develop the skills in therapies associated with long term care. A preceding Winter

Session course, Deviations in Human Growth and Development, which focused on such aspects as mental retardation, learning disabilities, had directed application to our experiences in clinics and schools designed to serve children with special needs. The other Winter Session course, Administration of Medication, was team taught by faculty from the School of Nursing and the School of Pharmacy. This experience provided us simulated opportunities to acquire skill in chemotherapy intervention with clients in long-term care facilities.

We expanded our client system to include the family system. Family assessments were made using the individual client subsystem framework: nutritional, affiliative, restorative. We were particularly studying the interaction between the family system and the system of the individual client who was experiencing a chronic stress state. This study was directly applied to learning experiences whereby we cared for clients and interacted with their families in inpatient settings. Upon discharge, we transferred and expanded our interactions (assessment, planning, implementation) to their home setting. This design enabled us to apply our first semester learnings in the wellness aspects of the clients' subsystems (i.e. normal nutrition, normal activity pattern) thereby seeing the health-illness range of dynamic continuum. Thus we increased our first semester primary assessment skills, including psychomotor, and gained further skills which were applicable to the care of clients with chronic illness in either hospital or community settings.

In the senior year, the focus shifted to clients experiencing acute stress states in both hospital based and/or community settings. We increased



our competence in assessing, planning, implementing and evaluating our nursing practice in relation to the system with which we were interacting, whether it consisted of clients hospitalized in general medical-surgical units or clients whose health needs were managed in community-based health care settings, i.e. OPD, Emergency Rooms, Health Departments, Community Mental Health Centers, and Crisis Intervention Centers.

The system with which we were interacting was expanded by further emphasis on group and community. To gain the theoretical and application base for group, particular attention was given to process, task orientation, and leadership skills. The junior year curriculum requirement of Introduction to Organizational Behavior provided the base line for our "group experiences;" they spanned from family to peer to work groups. Discussion within this course dealt with the realities of working within systems and supra systems as students and as health professionals. Thus our experiences focused on working with members of the health team in providing care to groups of individuals and to families, both in hospitals and in communities.

The selection of a clinical nursing offering in the Winter Session of the senior year gave additional opportunity to deal with reality situations in nursing such as operating room, delivery room, intensive care nursing, or working with specific groups of clients, e.g. high risk infants, and school children. This offering also gave us the opportunity to study a particular self interest area in depth. Further opportunity for individual interest study was the selection of health electives among many exciting offerings: Intimate Behavior, Aging, Death Education, Urban Nutrition, Women and Health.

A course in research methodology which fo-

cuses on evaluating the qualitative aspects of research in the health literature has indeed broadened our analytical skills. This experience brought forth a true sense of academic curiosity—a way of examining and questioning—culminating in the open, dynamic, and challenging process of nursing practice.

The course, Nursing in Society, contributed by further expanding our perceptions of professional nursing's potential, responsibilities, and future direction within the health care system. We honestly do believe, however, that we have been uniquely prepared to influence nursing's direction in future years.

We feel we have been an impressive force as students as evidenced by our representation on the Curriculum Committee. We have also witnessed change in course offerings as a result of our evaluation input.

We see our uniqueness as being the interactive process with the totalness of human beings who span the health-illness continuum. We extend and share our knowledge and skill in such areas as normal human growth and development, deviations in development, and chronic and acute illness through health teaching, counseling, and technical skills. Our arenas of nursing practice include individual client, family-group, and community systems. We see nursing practice as working with these systems in exploring alternatives and moving toward higher levels of well being. We have come a long way in meeting the current health care challenge.

¹University of Maryland School of Nursing, "Introduction," Pledge Yearbook, 1975, p. 5.

²University of Maryland School of Nursing, "Introduction," Pledge Yearbook, 1975, pp. 7-16.

ED. NOTE: Dr. Hughes is Associate Professor and Associate Dean for Undergraduate Studies of the University of Maryland School of Nursing.



Photos: Phil Szczepanski

PRESIDENT'S MESSAGE

William H. Mosberg, Jr., M. D.

In late June, the University of Maryland Hospital was faced with a deadline for providing "Malpractice" insurance for its House Officers and for the full-time salaried faculty. With the uncertainties caused by The Medical Mutual Liability Insurance Society being still in an organizational phase, the University of Maryland Hospital contracted for a Professional Liability policy with a "Back End Charge". This, of course, means a "Claims Made" rating system. It is important for our Medical Alumni—and particularly those practicing in Maryland—to understand that there are some striking differences between such a claims made policy purchased by an institution and such a policy purchased by an individual. Indeed, the University of Maryland Hospital is acting as a reinsurer or intermediary to provide thereby an "Occurrence" type of coverage for the physicians covered under that policy. We are informed that any House Officer or full-time faculty member, even though he leaves the University of Maryland Hospital and no longer pays "Malpractice" insurance premiums to that company will be covered for any acts which he committed during his period of coverage at the University of Maryland Hospital—AS LONG AS THE UNIVERSITY OF MARYLAND HOSPITAL MAINTAINS THIS POLICY WITH THE SAME COMPANY. Needless to say, a physician purchasing a similar policy as an individual would have no such security or coverage at the expiration of the year for which he had paid an insurance premium.

A sine qua non of making any decision regarding the purchase of "Malpractice" insurance is an understanding of the difference between a "claims made" insurance policy and an "occurrence" type policy. The second thing that must be understood is that ordinarily there is a latent period of perhaps two to three years or longer between the time of an alleged act of "Malpractice" and the time a claim is filed for that alleged act of malpractice.

The following is quoted from the Professional Liability Newsletter, February 10, 1975:¹

"The usual malpractice insurance coverage in the United States is provided by "occurrence" insurance contracts. The physician pays a premium of 1974, for example, and he is protected against all claims for injuries



which occurred in 1974 regardless of when the patient may sue. A claims made insurance contract differs radically.

The physician who purchased this type of insurance in 1974 was covered only for a claim which surfaced during 1974. Therefore, the physician must continue to pay his premium, year after year, until no further claims could possibly arise.* . . . What is the advantage to the company in the claims made policy? It is apparent no fewer claims will be reported, ultimately, as compared with an occurrence contract. But by setting premiums according to the claims reported in the previous year, the company stays closer to realistic rate making. But the chief advantage to the company identifies the commonest criticism of the claims made contract: The company can leave an area with no concern about future losses from unreported claims, while the physicians they drop cannot risk a loss of coverage, regardless of cost. The insurance contract may require the company to "pick up the tail" of all claims which may occur in the future from injury caused prior to the date of cancellation.

*Under current Statutes of Limitations beginning at majority in infants, this essentially means coverage for the rest of the doctor's life.

Or the physicians might find another carrier to assume this risk. In either case the premium could be enormous.

Claims made insurance also exposes a physician to the possibility of a particularly sharp insurance practice. Recognizing that claims during the first couple of years of their new experience in an area will be low, what is to prevent a company from writing claims made insurance for a short time, realizing a large profit, and then leaving the area?

What is the advantage of a claims made policy to the physician? The only one would seem to be the provision of coverage at a time when no company will write occurrence insurance."

Any physician who purchases a claims made policy will almost certainly have previously held an occurrence type policy in which event any claims filed against him during the next two or three years will be covered by his previous occurrence policy. Accordingly, any company offering a claims made type of policy can during the first year offer an extremely low premium. In essence, the policy holder is making a contribution or donation to the insurance company. Therefore, the argument that the premium is lower for a claims made policy than for an occurrence policy rings hollow when one realizes how little one is purchasing with his first year of claims made coverage.

Presumably, the physician who is nearing the end of his career and wants to taper off his volume of practice will have to continue to pay the same high rates that he paid during his years of active practice. A classic example would be the Gynecologist who formerly paid high premiums when he was doing a large volume of surgery and who wishes to limit his practice to office Gynecology and do no operations. In the latter instance with an occurrence policy, the office-practicing Gynecologist would pay a much lower insurance premium. Presumably, if he wanted to remain covered for any alleged acts of malpractice which may have occurred when he was doing surgical Gynecology, under a claims made policy he would still have to pay the same high premium. In an effort to confirm this, the office of a local insurance agent was called. When asked whether the insurance premium would remain the same in such circumstances, the answer was that perhaps some adjustment would be made. When an attempt was made to get a definite statement, it was said that such a decision would have to be made by the insurance company at some future date and not by the insurance agent. There are other equally alarming but less widely appreciated areas

in which the advent of claims made coverage could be disastrous. There are a number of organizations which provide volunteer physicians and surgeons for overseas assignments in developing countries. Such organizations as CARE-MEDICO, the Peace Corps, the Hope Ship, and the Medical Assistance Program depend for their existence on physicians and surgeons volunteering for periods of approximately two years as well as the one and two month volunteers. Such volunteers are provided with housing and paid only a subsistence salary. The necessity of continuing to pay premiums on a claims made policy during such a period of volunteer overseas service would be incomprehensible. Therefore, recruitment for such volunteer organizations will be virtually eliminated. The same disadvantage exists in the case of a physician who is motivated to do a period of public service, to be a candidate for elective office, or to shift from active clinical practice to some administrative post. It is not generally understood that medical officers in the Armed Forces have to pay their own malpractice insurance premiums. A physician or surgeon in clinical practice who volunteers for a period of military service would still have to pay his same insurance rates to maintain coverage for his previous years in active practice even though his post in the military might be an administrative one where there was no exposure to the malpractice risk.

The foregoing are some of the reasons for practicing physicians opposing vigorously the principle of claims made "malpractice" insurance. It would appear that the purchaser of professional liability insurance should familiarize himself with all available possibilities and, utilizing professional counsel if necessary, be fully aware of the type of professional liability insurance he purchases.

1. *Rubsamen, D. S. California Malpractice Topics. Professional Liability Newsletter, Inc., February 10, 1975.*

Honor Award and Gold Key 1975



Benjamin M. Stein, M.D.

On May 28, 1975 the University of Maryland Medical Alumni Association presented the Medical Alumni Honor Award and Gold Key to Benjamin M. Stein of the Class of 1935.

Dr. Stein was born in New York City on March 11, 1911. His preliminary education was received at the Hempstead Schools on Long Island. He attended undergraduate school at the University of Maryland at College Park where he received his Bachelor of Science Degree and graduated from the University of Maryland School of Medicine in 1935. He served two years of internship at the Jamaica Hospital in Jamaica, New York until 1937. He served in the U.S. Army from 1941 to 1946 as a Medical Officer in the European Theater of Operation where he established and supervised Radiology Departments at U.S. Army Hospitals in Frankfurt and Berlin, Germany. He re-entered private practice in Hempstead, N.Y. in 1946 and became a Diplomate of the American Board of Radiology in 1947. Dr. Stein became a Director and joint owner of the Brunswick Home, Inc. in Amityville, N.Y. where he also served as co-chief of the hospital's Department of Radiology. His private practice at that time was limited to consultations in radiology. In 1957, he became the sole owner of the Brunswick Home, Inc., which operated the Brunswick General Hospital, The Brunswick Nursing Home-Geriatric Unit and Unit for Mentally Retarded Children. He purchased the Loudon-Knickerbocker Hall in 1958 and incorporated this institution into the Brunswick Home and

Hospital. In 1960, he petitioned for, and was granted, a change in the name of the corporation to The Brunswick Hospital Center, Incorporated on the basis that "it more accurately describes the coordinated medical, nursing and psychiatric services available through the four divisions of the hospital complex."

Dr. Stein was the first President and Chairman of the Board of Directors of the Federation of American Hospitals. He has also been Vice-President of the Accredited Private Hospital Association of Nassau-Suffolk. He was founder and member of the Long Island Radiological Society and he has served as a member of the Board of Governors Human Resources Foundation. He is a member of the Department of Health, Education and Welfare Committee on Medical Malpractice and on the Health Advisory Council of the National Institute of Economic Research. He was recently appointed as a member of the Advisory Board to the President of the University of Maryland.

Ten years ago Dr. Stein initiated a continuing education program at the Brunswick Hospital Center. This program is conducted by the University of Maryland School of Medicine Continuing Education Committee. Faculty members from this institution present the program biennially.

By presenting its Honor Award and Gold Key to Benjamin M. Stein, the University of Maryland recognized him as one of their most illustrious graduates.

1875-1975

ALUMNI DAY CENTENNIAL CELEBRATION

The 1975 Alumni Day Activities and Centennial Celebration of the Medical Alumni Association opened with Registration on Tuesday evening, May 27, in Davidge Hall. Following registration, the alumni members enjoyed a delightful buffet, cocktails, and conversation at the Alumni Cocktail Reception in the garden adjacent to Davidge Hall.

On Wednesday morning, after registration, Dr. Robert B. Goldstein, President, conducted the Opening Exercises in Chemical Hall. Welcoming remarks were made by Dr. Albin O. Kuhn, Chancellor of the Baltimore Campus, and Dr. John M. Dennis, Dean, University of Maryland School of Medicine. The scientific session that followed was conducted by Dr. Edward J. Kowalewski, Professor and Head of the Family Practice Program, and his staff. The topic was "Continuous Comprehensive Patient Care—Challenges and Rewards."

At noon, the Annual Business Meeting opened with the approval of the Minutes and Treasurer's Report. The Necrology List was read by Dr. William H. Triplett and a moment of silence was observed in memory of the departed alumni. Committee reports followed; and the amendments to the Constitution and By-Laws were approved.

Dr. William J. R. Dunseath gave a brief report on the Advisory Committee Meeting which was held on May 27 at the Hunt Valley Inn. A progress report on the activities of the Committee will be forthcoming in the Fall issue of the *Bulletin*.

The following slate of Officers and Board of Directors for 1975-76 was unanimously approved as presented.

President-elect: James A. Roberts, M.D., '46
Secretary: Salvatore R. Donohue, M.D., '64
Treasurer: John F. Strahan, M.D., '49
Vice Presidents: Benjamin M. Stein, M.D., '35
John Z. Bowers, M.D., '38
Isadore Tuerk, M.D., '34

Board of Directors:

Three-Year Term: Virginia Huffer, M.D., '50
S. Edwin Muller, M.D., '37
Frank G. Kuehn, M.D., '50

One-Year Term: Bernard S. Karpers, Jr., M.D., '62

The following members nominated from the floor will serve on the Nominating Committee:

James R. Karns, M.D.
Everett S. Diggs, M.D.
Joseph Nataro, M.D.

Following the election of officers, Dr. Goldstein introduced the incoming President, Dr. William H. Mosberg, Jr. Dr. Mosberg announced the remaining Alumni Day activities and there being no new business, the meeting was adjourned.

A luncheon followed at the Holiday Inn, Circle One Restaurant, after which the group returned to Davidge Hall where Dr. John M. Dennis, Dean, spoke on "The Influence of External Forces on Medicine."

The wives of the alumni toured the Evergreen House of Johns Hopkins University which houses a rare book museum and coin collection. During the sherry hour, prior to luncheon at the Seoul Restaurant, the ladies were given a floral arranging demonstration.

The evening activities at the Hunt Valley Inn began with a Reception for the Fifty-Year Graduates and the Class of 1975. Following greetings from the President, the Invocation by The Reverend Gibson J. Wells, M.D., and dinner, the Honor Award and Gold Key was presented to Dr. Benjamin M. Stein, Class of 1935.

Dr. John C. Krantz, Jr., Professor Emeritus, Department of Pharmacology, University of Maryland School of Medicine, was the guest speaker and delivered his address entitled, "On Being an Inquisitive Physician." Following Dr. Krantz's speech, the Fifty-Year Certificates were presented to seventeen members of the Class of 1925. The President acknowledged and thanked the Class of 1925 for its \$600.00 donation to the Davidge Hall Restoration Fund. He also acknowledged the Classes of '30, '35, '40, '45, '50, '55, '60, '65, and '70, which were holding five-year reunions.

The President recognized and thanked Dr. & Mrs. Herbert J. Levickas, Chairman of the Alumni Day Activities, and Mrs. Jean D. Goral, Executive Administrator of the Alumni Association, for their outstanding efforts in making the 1975 Alumni Day and Centennial Celebration a success.

Dancing followed until 1:00 a.m.

Centennial Celebration 1975 Alumni Day Activities



Mrs. Robert B. Goldstein, Dr. Goldstein & Dr. William Triplett chat at cocktail party.

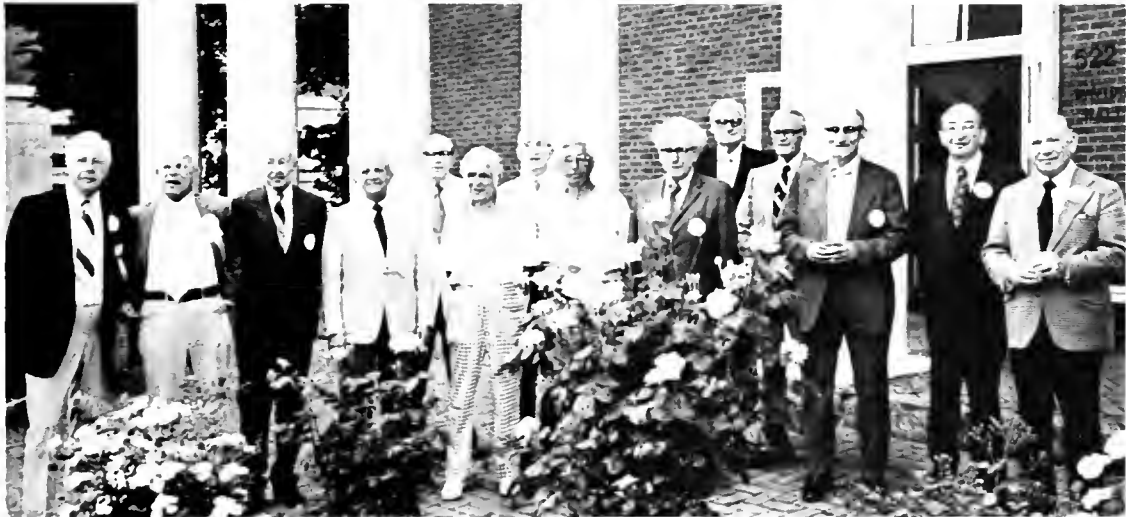
Dr. Edward J. Kowalewski conducts the scientific session in Chemical Hall. Seated in front row, left to right: Dr. John M. Dennis, Dean, '45, Dr. Thurston R. Adams '34, Dr. Herbert J. Levickas '35, Chairman, Alumni Day Activities, Dr. Charles A. Minnefor '25.



Dr. Robert B. Goldstein '54 turns over the gavel and the presidency to Dr. William H. Mosberg, Jr. '44.



Class of 1935 Left to Right: H. B. Mays, H. M. Robinson, Jr., L. K. Woodward, Benj. Stein, Melvin Aungst, Philip Owen, John Hamrick, Sol Rosen, Harry Teitelbaum, John Albright, Alpine McGregor, Joseph Tuby, Saul Lieb, Louis Teitel.



L-R: Mrs. William H. Mosberg, Jr., Dr. William H. Mosberg, Jr. '44, Dr. R.T. Mendez-Bryan '51, Dr. William J. R. Dunseath '59, Dr. Theodore E. Woodward '38, Dr. John O. Sharrett '52, and Mrs. Sharrett.



Dr. Robert B. Goldstein presents the Honor Award and Gold Key to Dr. Benjamin M. Stein '35.



Dr. John Krantz addresses the alumni at the banquet at Hunt Valley.



Left-Right: Dr. Dennis Kutzer, Anne Young, Dr. Greg Richardson, Cyndy Renoff, Dr. George Taler, Dr. Howard Schnaper, Charles MacArthur, Dr. Dorothy Hsiao, and Sally Mays Kutzer.



50 YEAR GRADUATES 1st ROW, L.-R. James W. Nelson, M. Paul Byerly, Mrs. Byerly, Mrs. Glick, Samuel S. Glick, Mrs. Nataro, Mrs. Fishman, Claude M. Lowe.
 2nd ROW, L.-R. Mrs. Balcerzak, Stanley P. Balcerzak, Eva F. Dodge, Mrs. Sarnoff, Mrs. Carmelita Grillo, Joseph Nataro, Mrs. Clahr, Thomas B. Turner, Mrs. Turner.
 3rd ROW, L.-R. Edgar R. Miller, John P. Keating, Jack Sarnoff, Miss Elsie Basovsky, Martin W. Wassersweig, Abraham A. Clahr, Harold H. Fishman.



Dr. & Mrs. Joseph Nataro enjoy the festivities with their sons, also alumni, left, Jerome Nataro '46 and Frank Nataro '55, right. Another son, Joseph '59, was unable to attend this year.



Three members of the 50 year class have been recipients of the Honor Award & Gold Key. Left to right—Joseph Nataro, Eva F. Dodge, Thomas B. Turner.



Two generations of physicians: Dr. Bruce Edmund Beacham '75, Dr. Edmund M. Beacham '40.



Howard W. Schnaper, Class of '75 with his dad, Nathan Schnaper, Class of '49.



Left-Right. Mrs. Walter L. Bailey, Dr. Bailey '40, Dr. Raymond M. Cunningham '39, Dr. Theodore Kardash '42, in the gardens of Davidge Hall.

In The Spotlight . . . Class of 1925

STANLEY P. BALCERZAK, M. D. of Carnegie, Pa., served his rotating internship and residency at St. John's General Hospital. Dr. Balcerzak practiced General Surgery and Family Medicine until 1965 at which time he began to practice Family Medicine exclusively. His son, Stanley, Jr., graduated in 1955 from University of Maryland School of Medicine and is now a Professor of Medicine at Ohio State College of Medicine.

M. PAUL BYERLY, M. D., served his internship at University of Maryland Hospital and went into General Practice in Baltimore. Dr. Byerly served as a Flight Surgeon on an Air-Sea Rescue Squadron from 1942-46. He practiced Internal Medicine until retirement in 1969.

ABRAHAM A. CLAHR, M. D., interned at Gouverneur Hospital (A Bellevue Allied City Hospital) and went into the practice of General Medicine in New York City. He has been retired since 1969.

EVA F. DODGE, M. D., of Little Rock, Arkansas, served her internship and residency at University of Maryland Hospital. Dr. Dodge was Professor of Obstetrics, Women's Christian Medical School, Shanghai, China, 1928-29 and Associate and Full Professor of Obstetrics and Gynecology, University of Arkansas Medical School, 1945-64. In 1969, Dr. Dodge was awarded an Honorary Degree — Doctor of Humanities, Ohio Wesleyan University. Dr. Dodge is presently Director of Arkansas Family Planning Program and lectures to high school students on family planning and venereal diseases. She also received the Honor Award and Gold Key in 1967 from the Medical Alumni Association.

HAROLD H. FISCHMAN, M. D. of Maplewood, N. J., was certified by the Board of Internal Medicine in 1948. Dr. Fischman did his post graduate studies in Internal Medicine, Cardiology, Pulmonary Diseases, and Diagnostic X-Ray at Mount Sinai Hospital in New York, Columbia University, Lenox Hill Hospital, N. Y., and Montefiore Hospital, N. Y. He continued his studies in Pathology, Cardiology, and Biochemistry at New York University. He was Director of the Department of Medicine, Martland Medical Center until its take over by the present New Jersey Medical and Dental College. Dr. Fischman was also an attending physician at Beth Israel Medical Center in Newark, N. J. At present he is Emeritus Attending at both institutions, and he continues in his private practice, working 60 hours a week.

SAMUEL SHIPLEY GLICK, M. D., trained in Pediatrics in Baltimore and has been a Consultant in the Out-patient Division of the Department of Pediatrics, University of Maryland Hospital for 40 years. Dr. Glick is Professor of Clinical Pediatrics Emeritus, University of Maryland School of Medicine and Past President of the University of Maryland Bradley Pediatric Society. He is active in the Phi Delta Epsilon Medical Fraternity, serving as National President and President of its Board of Trustees. A member of the original Committee for the Restoration of Davidge Hall, Dr. Glick is also a member of the Advisory Committee of 100 of the Medical Alumni Association. He has one son, Leonard, who graduated from University of Maryland School of Medicine and is now Dean of the School of Social Sciences and Professor of Anthropology, Hampshire College, Amherst, Massachusetts.

JOHN P. KEATING, M. D., of Elmhurst, Long Island, New York, served his internship at Mercy Hospital in Baltimore. He began General Practice in Rego Park, N. Y. in 1927. In 1930, he began surgical training at St. John's Queens Hospital and for 35 years has been on its staff. As of May, 1975, he was practicing on a part-time basis and planned to retire in July, 1975.

CLAUDE M. LOWE, M. D., of Stewartstown, Pa., interned at Mercy Hospital in Baltimore. He was in industrial practice with Standard Oil until 1931 and was associated with Drs. Edgar and Elizabeth Miller until 1950. He was affiliated with the West Virginia Western State Hospital. Dr. Lowe retired in 1962.

EDGAR R. MILLER, M. D. of Liverpool, Pa., interned in 1925-26 at the Methodist Hospital in Philadelphia. He was Chief Resident under Dr. Pincoffs, 1926-27, at University of Maryland Hospital, and Chief Resident in Internal Medicine at the Methodist Hospital in 1927-28. He began General Practice in Wilmington, Delaware 1928-37. He is a member of the American Board of Internal Medicine and the American Board of Cardiology. He was Chief of Medicine at the Delaware Hospital 1938-56. From 1956 to 1965, Dr. Miller was on a medical mission to Nepal where he helped establish a hospital. Since that time he has received numerous citations and invitations from that country. He is now retired.

CHARLES A. MINNEFOR, M. D. of South Orange, New Jersey, has been in General Practice

for 50 years. For 35 years he was connected with the Health Department of Newark, in the Chest Division of the T. B. Clinic. Dr. Minnefor was on the staff of Newark City Hospital (now College of Medicine and Dentistry of New Jersey) for over 30 years and is still in General Practice.

JOSEPH NATARO, M. D., trained at the Newark City Hospital in Newark, N. J. He entered General Practice for a few years then specialized in Internal Medicine and Cardiology. In 1956, he began a new life as a Neurologist at Veterans Administration Hospital in East Orange, N. J. He was Chief of Medicine and Cardiology at St. James Hospital in Newark and a lecturer in the Department of Medicine, N. J. College of Medicine and Dentistry. Dr. Nataro was a recipient of the Honor Award and Gold Key in 1956 from the Medical Alumni Association and was Vice President of the Maryland Medical Alumni Association, 1960-62. Dr. Nataro has three sons who are also alumni of this medical school; Jerome, Class of 1946; Frank, Class of 1955; and Joseph, Class of 1959. Dr. Nataro's brother, Maurice, also graduated from University of Maryland School of Medicine in 1937. Dr. Nataro is retired and resides in Fort Lauderdale, Florida.

JAMES W. NELSON, M. D. served his residency at the South Baltimore General Hospital and Mercy Hospital in Baltimore. He was geographical Professor of Surgery at the University of Maryland Hospital and has been a member of the College of Surgeons since 1932. He was in charge of the Cancer Research Board on the Eastern Seaboard. Dr. Nelson is now retired.

LEWIS C. RICHMOND, SR., M. D. practiced medicine in Russell, Kentucky 1925-32. He moved to Milton, W. Va. and practiced there until 1966. Dr. Richmond retired in 1966 and now resides in Fort Lauderdale, Florida. Dr. Richmond has a son, Louis, Jr., who graduated from the University of Maryland School of Medicine in 1953.

JACK SARNOFF, M. D. of Long Island, N. Y., interned at what is known today as the Brookdale Medical Center, Brooklyn, N. Y. in 1925-26. He specialized in Otolaryngology and was Director of Otolaryngology at St. John's Queens and Astoria General Hospitals. He is a member of numerous medical organizations. He retired in 1969 from

active practice and is now a Consultant to the New York State Department of Social Services.

THOMAS B. TURNER, M. D., interned at the Hospital for Women of Maryland, 1925-26. He was a resident in Medicine, 1926-27. He was a Fellow in Medicine at the Johns Hopkins Medical School, 1927-28. Dr. Turner has held numerous professional and academic appointments since completing his training. From 1939 to 1957, he was Professor of Microbiology at the Johns Hopkins School of Hygiene and Public Health. From 1957-68, he was Dean of the Medical Faculty and Professor of Microbiology at the Johns Hopkins Medical School and Archivist of the Johns Hopkins Medical Institutions, 1969 to present. In 1966, Dr. Turner received an honorary degree of Doctor of Science. Dr. Turner was also the recipient of the Legion of Merit while in the U. S. Army, 1942-46. He was awarded the Honor Award and Gold Key of the Medical Alumni Association in 1968.

MARTIN M. WASSERSWEIG, M. D. was the Chief of Medicine from 1929-68 at St. Joseph's Hospital in Reading, Pa. Dr. Wassersweig continued his post graduate courses at the University of Maryland School of Medicine, University of Buffalo, Jefferson Medical School, and Einstein Hospitals in Philadelphia, Pa. He is a Charter Fellow of the American Academy of Family Practice and has been active in many local and national medical societies. He is a Consultant in Medicine at St. Joseph's Hospital.

JOHN L. WINSTEAD, M. D. served his surgical internship and residency at University and Mercy Hospitals in Baltimore, 1925-29. He was Chief of Surgery, Pitt Community Hospital, 1929-51. He was a surgeon at Pitt Memorial Hospital until 1969 when he retired. Dr. Winstead resides in Greenville, North Carolina.

CHARLES CONRAD ZIMMERMANN, M. D., served a rotating internship and 2 years as Surgical Assistant to Dr. Robert Bay at Maryland General Hospital, 1925-28. He was a resident in Surgery at St. Joseph's Hospital, 1928-29 and in 1929 began practicing surgery in Cumberland, Maryland. In 1938, he became a Fellow in the American College of Surgeons and in 1956 became a Fellow — College of Surgeons. Dr. Zimmermann now resides in Cumberland and Deep Creek Lake, Maryland.

THE 40TH REUNION—CLASS OF 1935

There are 70 living members of the class of 1935 and of this number 40 attended the 40th class reunion. The group had a private party at the Baltimore Country Club on Tuesday, May 27th at which time there was good fellowship and reminiscences of bygone days. The spirit of this group is reflected in a letter from Irv Freeman, who is now Chairman of the Department of Extended Care at the Maricopa County General Hospital in Arizona, who said "Unfortunately, I shall not be able to attend, however, in my heart I shall share with all of you who attend, that warm feeling of brotherhood that seemed to permeate the members of our class."

Sol Rosen has been engaged in general practice since 1938 and is still going strong. He was past President of the Millville Hospital and the Cumberland County Medical Society.

John Warren, who has practiced in Laurel for the last 38 years has been active in civic affairs all this time. He and his brother built a hospital and John is still active there.

Milton Adelman, who lives in Scarsdale, New York is Clinical Professor of Anesthesiology at the Mt. Sinai Hospital School of Medicine and is a fellow of the New York Academy of Medicine.

Everett Wood finally left Albuquerque, New Mexico after many years and has settled in Brevard, North Carolina where he continues to practice ophthalmology. He received a Certificate of Award from the American Academy of Ophthalmology in 1959 and is a member of the National Board of Eye Bank Association of America. He has been active in local medical societies.

Saul Lieb, who was a Diplomate of the American Board of Internal Medicine and a Fellow of the American College of Chest Physicians, has retired from practice this year.

Sam Einhorn, who served in the Army with the rank of Lt. Col., is still in private practice of Internal Medicine.

Ernie Cornbrooks, who is a Diplomate of the American Board of Obstetrics and Gynecology, is still in active practice.

O. T. McDonough, Jr. retired from the U.S. Navy as a Capt. on June 1st, 1972. He is now living in Williamsburg and is enjoying retirement.

Ben Stein, who is doing a superb job operating his own hospital in Amityville, New York, was honored by the Alumni Association this year. He received the Gold Medal.

Harry M. Robinson, Jr., who is still Professor and Head of Dermatology at the University Medical School has been elected vice president of the American Dermatological Association. Last year he received the Becker Gold Award from the American Academy of Dermatology. His daughter is a cardiologist.

Rod Layton, who has been active in the affairs of Queen Anne's County for many years is still doing general practice in that location. He was vice president of the American Academy of Family Physicians for six years and he received the distinguished Service Certificate of the Maryland General Practitioners.

D. J. McHenry, who is a Fellow of the American College of Surgeons and the American Academy of Ophthalmology, is still in active practice of his specialty in York, Pa.

Walter Gerwig is retired and enjoying life in Honolulu. He sent us a telegram regretting he was unable to attend the reunion.

Irv Klompus retired from general practice six years ago and moved to San Francisco. He is now running a training program for medical students, psychologists, etc. for the Haight Ashbury Free Medical Clinic on the drug abuse problem.

Milton Robinson has been living in Arizona for the past six years and is working as medical director for the Arizona State Department of Mental Retardation.

Lew Woodward, who is now semi-retired and living in Woodstock, Va. has been serving as International Medical Director of Project Concern, a volunteer medical program in Asia, Africa, Latin America and the U.S. He worked for the U.S. Foreign Service as Medical Director for about twelve years.

Mac MacLaughlin, who served in the Navy as Lt. Cdr., is still in Family Practice after 39 years of hard work. He is active in St. Agnes Hospital, Lutheran Hospital and Maryland General Hospital.

John Albrittain retired from the Navy in March, 1973 as Rear Admiral. He served as Deputy Surgeon General of the Navy and was awarded the Legion of Merit.

Paul Schonfeld, whose son graduated in the Class of 1968, is still in Family Practice in South Baltimore.

Philip Owen, who has recently retired, has been active in Boy Scout work and the Lions Club Health and Eye Disease Detection Committee.

Ed Cotter, a diplomate of the American Board of Internal Medicine, is in active practice in Baltimore.

Frank Dickey, who served as Director of the Veterans Hospital in St. Louis, has retired and is now living in Baltimore.

Howard Mays, an outstanding urologist, is still in active practice. Alpine McGregor and Mel Aungst came from the farthest distances to attend the reunion. Bill Raffel, sporting a white goatee, was in evidence as was Charlie Reier and Bob Fruchtbau. Bill Grenzer and Joe Gross together with Jeff Heghinian and Bill Helfrich helped to swell the crowd.

Karl Mech, who is active in civic affairs, is still practicing surgery. He is Director of the Blue Shield Board. He has just been elected President of the Medical and Chirurgical Faculty of Maryland. His son is a qualified general surgeon.

Others in attendance of the reunion party were Lou Teitel, Harry Teitelbaum, Joe Tuby and Jeff Heghinian.

Syd Shapiro, chief of the Family Practice Service, at Irvington, N.J. Hospital, is a Fellow of the American College of Family Practice.

Rip Williamson, knowledgeable in the field of industrial medicine, is active in the Eastern Industrial clinic, but has had to discontinue his surgical practice because of some physical problems.

Last but not least, Norm Wilson, our president, was also there. He is still in active practice but no longer doing surgery.

We are looking forward to the next reunion. I hope that any of you who could not attend this one will be present at the next one.

Harry M. Robinson, Jr., M.D.
Class Captain

Program of Continuing Education 1975—Schedule of Medical Continuing Education Courses

SEPTEMBER, 1975

- 12-14 (Friday, Saturday, Sunday)—PRACTICAL NEUROPATHOLOGY, Dr. Julio Garcia, Course Director. Location: Cross Keys Inn, Baltimore
- 19-21 (Friday, Saturday, Sunday)—OFFICE PSYCHIATRY FOR THE FAMILY PHYSICIAN, Dr. William Weintraub, Course Director
- 5 days, Individually arranged—VISITING PRACTITIONER PRECEPTORSHIP PROGRAM, Dr. Ephraim T. Lisansky, Director. Location: University of Maryland, Baltimore

OCTOBER, 1975

- 2, 9, 16, (6 Consecutive Thursday evenings)—SELECTED TOPICS IN GENERAL AND
23, 30 FAMILY PRACTICE—PART 1, Dr. William Weintraub, Course Director.
Nov. 6 Location: University of Maryland, Baltimore
- 3-4 (Friday, Saturday)—CANCER SEMINAR—No. 1, Dr. Peter Wiernik, Course Director.
- 24-25 (Friday, Saturday)—INTRAOCULAR LENS SYMPOSIUM, Dr. Leeds Katzen, Course Director.
- 25-26 (Saturday, Sunday)—TOPICS IN INTERNAL MEDICINE, Dr. Morton Rapoport, Course Director.
- 5 days, Individually arranged—VISITING PRACTITIONER PRECEPTORSHIP PROGRAM, Dr. Ephraim T. Lisansky, Director. Location: University of Maryland, Baltimore

NOVEMBER, 1975

- 6 (Part of Series beginning October 2)—SELECTED TOPICS IN GENERAL AND FAMILY PRACTICE—PART 1.
- 13-15 (Thursday, Friday, Saturday)—CRITICAL CARE SEMINAR, Dr. T. Crawford McAslan, Course Director.
- 20 (Thursday)—ORTHOPAEDIC DAY, Dr. Roger Michael, Course Director
- 5 days, Individually arranged—VISITING PRACTITIONER PRECEPTORSHIP PROGRAM, Dr. Ephraim T. Lisansky, Director. Location: University of Maryland, Baltimore.

NECROLOGY 1974-1975

Col. William A. Wickline, M.D.	1895	Vincent M. Maddi, M.D.	1928
Arthur A. Shawkey, M.D.	1900	John J. Haney, M.D.	1929
Jerome Steinfelder, M.D.	1908	Walter P. Knight, M.D.	1929
Frank Paul Firey, M.D.	1910	Fred D. Keller, M.D.	1930
J. Walter Layman, M.D.	1910	Nathan Snyder, M.D.	1930
Walter I. Neller, M.D.	1910	Nathaniel M. Sperling, M.D.	1930
Paul J. Parker, M.D.	1910	Alston G. Lanham, M.D.	1931
Maurice E. Shamer, M.D.	1910	John J. Shaw, M.D.	1932
Archie Eugene Brown, M.D.	1911	Asa Mark Scarborough, M.D.	1933
Isaac Macks, M.D.	1911	Dan George Bierer, M.D.	1935
G.D. Townsend, M.D.	1911	Ira F. Hartman, M.D.	1935
Charles P. Clautice, M.D.	1912	George F. Schmitt, Jr., M.D.	1935
Albert E. Man, M.D.	1912	Emory E. Jones, Jr., M.D.	1936
Samuel Miller, M.D.	1912	William Myers, M.D.	1936
Joseph Skladowsky, M.D.	1912	Ralph B. Roseman, M.D.	1936
Ray M. Bobbitt, M.D.	1913	Leonard Brill, M.D.	1937
James C. Brogden, M.D.	1914	James K. Insley, M.D.	1937
Theodore McKinn Davis, M.D.	1914	John J. Knox, M.D.	1938
Edward E. Fitzpatrick, M.D.	1915	Richard W. Corbitt, M.D.	1939
Lucien Romeo Chaput, M.D.	1916	Joseph Deluca, M.D.	1940
John Roy Hege, M.D.	1916	Solomon B. Zinkin, M.D.	1940
Charles A. Reifschneider, M.D.	1916	Harry T. Witson, M.D.	1940
Charles H. Audet, Sr., M.D.	1917	Robert B. Mulvaney, M.D.	1941
D. F. Bennet, M.D.	1917	W. Hamilton Sawyer, Jr., M.D.	1941
Claude C. Burton, M.D.	1920	Gabriel A. Ingenito, M.D.	1943
James P. Kinney, M.D.	1920	Thomas L. Morrow, M.D.	1944
J. Harold Underwood, M.D.	1920	Warren H. Pike, Jr., M.D.	1945
Joseph Desane, M.D.	1923	John F. Hogan, M.D.	1947
Philip Hirsch, M.D.	1923	Robert L. Swink, M.D.	1947
Harry R. Fisher, M.D.	1924	Elinor Weed Demarest, M.D.	1950
Ben Hertz, M.D.	1925	Wilbur C. Pickett, M.D.	1956
David Sashin, M.D.	1926	Harvey S. Feuerman, M.D.	1962
Arthur A. Scullion, M.D.	1926	Alvin David Rudo, M.D.	1962
Dwight M. Hoke, M.D.	1927	Paul Zikoski, M.D.	1962
Asa Warde Milhoan, M.D.	1927	Arthur Callahan, M.D.	1971

MARYLAND DAY MEDICAL ALUMNI CONFERENCE
Saturday, October 18, 1975
Brunswick Hospital Center, Amityville, New York

A. 12 Noon — 1:30 p.m.— Luncheon and Hospital Tour

B. SCIENTIFIC SESSION

- 1:30—1:40** Welcome: Benjamin M. Stein, M.D.
President, Brunswick Hospital Center
Remarks: John M. Dennis, M.D.
Dean, University of Maryland
School of Medicine
- 1:40—1:45** Introduction of Program
Moderator: E. T. Lisansky, M.D.
Professor of Medicine
Associate Professor of Psychiatry
Associate Director, Program of Continuing
Education
University of Maryland School of Medicine
- 1:45—2:15** Alcoholism—Medical Complications
Frank L. Iber, M.D.
Professor of Medicine
Chief, Gastroenterology Division
University of Maryland School of Medicine
Baltimore Veterans Administration Hospital
- 2:15—2:45** Alcoholism—Detoxification
Frank L. Iber, M.D.
- 2:45—3:00** Question Period
- 3:10—3:15** Introduction of Program
Moderator: Dennis K. Wentz, M.D.
Associate Director for Clinical Affairs
Assistant Dean, Hospital Affiliations
Director, Program of Continuing Education
University of Maryland School of Medicine
- 3:15—3:45** Initial Management of the Injured Patient
G. Robert Mason, M.D.
Professor and Chairman
Department of Surgery
University of Maryland School of Medicine
- 4:00—4:30** Acute Management of Musculoskeletal Injuries
Roger H. Michael, M.D.
Associate Professor and Acting Chairman
Division of Orthopaedic Surgery
University of Maryland School of Medicine
- 4:35—4:45** Question Period

Faculty members and their wives attending will be: Dean & Mrs. John M. Dennis, Dr. & Mrs. Dennis Wentz, Dr. & Mrs. Ephraim T. Lisansky, Dr. & Mrs. Frank Iber, Dr. & Mrs. G. Robert Mason, Dr. & Mrs. Roger Michael. Honored guests in attendance will be: Dr. & Mrs. Robert B. Goldstein, Dr. & Mrs. William H. Mosberg, Jr., Dr. & Mrs. James A. Roberts, and Mr. & Mrs. John Goral.

UNIVERSITY OF MARYLAND

SCHOOL OF MEDICINE CLASS OF 1975

Charles Edward Andrews
 Barry Steven Aronson
 Fred Carl Aronson
 Fred Carl Ashman
 James Lawrence Atkins
 Mark Stuart Austerlitz
 Robert James Beach
 Bruce Edmund Beacham
 John F. Biedlingmaier
 Howard Harris Bond
 Jonathan David Book
 Marsha Jeanette Brown
 Timothy James Byrnes
 James Joseph Campbell
 John Howard Carrill
 James R. Chaillet, Jr.
 Linda Wansheung Chen
 Noel Michael Chiantella
 Michael Eric Cohen
 Seth Bruce Cutler
 Laurence Desi
 Karl William Diehn
 Louis Thomas Divilio
 Richard Larry Dotson
 George Louis Drusano
 Albert H. Dudley, III
 Karl Elliott Epstein
 James Ralph Evans
 Patricia R. Falcao
 Jeffrey Ellis Feld
 Ira Ted Fine
 David George Fisher
 Paul David Forney
 Louis Fox
 Herbert Neil Friedman
 Judith Gadol
 James Garson Gamble
 Robert Bruce Garrett
 Benjamin Glaser
 Gary Frederick Harne
 Albin Warner Harris
 Darwin Lee Hege
 Malcolm Stuart Henoeh
 Rochelle Herman

Walter B. Hettinger
 Charles Francis Hoesch
 Donald Stanley Horner
 Dorothy Shih-yi Hsiao
 Kenneth V. Iserson
 Alan Louis Joffe
 Glen Edward Johnson
 Neil Kahanovitz
 Brian Stuart Kahntroff
 Gillian Kay Karatinos
 Marion Conrad Kowalewski
 Thomas Frank Krajewski
 Marc Steven Kramer
 Mary Lou Kramer
 Kenneth David Drause
 Dennis Jan Kutzer
 Jeffery Stefan Landes
 Sandra Diane Lavoie
 Richard Winfield Little
 Mark Chang-Lua Liu
 Thom E. Lobe
 Frank Edward Long
 Edmund John MacLaughlin
 Charles Elmer Manner
 William Peter Marwede
 Scott Michael McCloskey
 Robert Bragg McDaniel
 Charles Richard Medani
 Jeffrey Lee Metzner
 Edward Marvin Miller
 Thomas Lee Moffatt
 Parry Alan Moore
 Edward Louis Morris
 Frank Hugh Morris
 David Remsen Moseman
 Jacek Lech Mostwin
 Richard J. Muirhead, Jr.
 Vincent M. Notarangelo
 John Thomas O'Mailey, Jr.
 Nicolette D. Orlando Morris
 Arnold Lawrence Oshinsky
 Harvey Byron Pats
 Kathryn Ann Peroutka
 Louis Ed. Perraut, Jr.
 Stephen H. Pollock

Jeffrey Lee Quartner
 James Allen Reggia
 Robert W. Reindollar
 Gregory B. Richardson
 Steven Paul Rivers
 Michael Ohlin Roach
 Robert Edelen Roby, Jr.
 James Lloyd Roessler
 John William Rose
 R. David Rose
 Mark Rosse
 Andrew Brent Rudo
 Gary Bruce Ruppert
 Howard W. Schnaper
 Deborah Jewell Schuhmann
 Susan F. Schwartz
 Mary Frances Schwenninger
 Linda Ruth Sessums
 Richard Michael Silberg
 Marlene Solomon
 James H. Somerville
 Ronald Jack Spector
 Paul G. Spottswood
 Ronald Chris Sroka
 Richard C. Stephenson
 Michael Berkley Stewart
 Ronald Telesfor Suski
 George A. Taler
 Terry Neil Talkin
 Richard Leslie Taylor
 Terry Alan Teplitz
 Trudy Elsmore Termini
 Roger Bernard Thomas
 Lloyd M. Van Lunen, Jr.
 Jill Rosetta Varni
 Robert Alan Vegors
 Gary Jay Waxman
 Lois Elaine Wehren
 Michael Eliot Weinblatt
 Leigh F. Wheeler, Jr.
 Robert Stuart Willig
 John Ling Young
 Julius David Zant
 William H. Zeidler, Jr.

ALUMNI CHATTER

June Robinson, '74, West Lebanon, N.H., will begin her Residency in Dermatology at Mary Hitchcock Clinic of Dartmouth Medical Center in Hanover, New Hampshire in July, 1975.

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Robert B. Greifinger, '71, Bronx, New York, has been appointed Chief Resident in Pediatric Social Medicine at Montefiore Hospital and Medical Center, Bronx, N.Y. He is also an Instructor in Community Health at Albert Einstein College of Medicine in the Bronx and University of Illinois School of Medicine, Rockford. Dr. Greifinger is a member of the Columbia University Seminar in Social and Preventive Medicine and has completed two years in the National Health Service Corps of the USPHS (1972-74).

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William D. Hakkarinen, '70, Millersburg, Pa., a graduate of the Family Medicine Residency Program at the Milton S. Hershey Medical Center of the Pennsylvania State University, and a member of the family of physicians which has served the community since 1902, was appointed as one of the first staff members of the Evelyn G. Frederick Health Center in Millersburg, Pennsylvania, effective July 1, 1975. Dr. Hakkarinen, former Chief Resident in Family Medicine at Hershey, will be Medical Director of the health center and Assistant Professor of Family and Community Medicine in the Penn State College of Medicine. He is a native of Hyattsville, Maryland and received both his B.S. and M.D. degrees from the University of Maryland. He spent the first year of his Family Medicine Residency at the University of Maryland Hospital and the last two years at the Hershey Medical Center where he was the first Chief Resident and recipient of a top national honor for family practice residents, the Meade Johnson Award.

For the past two years, Dr. Hakkarinen served in the U.S. Navy as a medical officer and Chief Medical Officer of the Family Practice Service for the Naval Regional Medical Center, Camp Lejeune, N.C. He was certified as a Diplomate of the American Board of Family Practice in 1973. While a resident at Hershey, he received first-hand experience in a rural practice in Loysville, Perry County, Pa. He and his family lived in the community and temporarily assumed the practice of Dr. Joseph L.

Matunis. His article, reporting his experience, appeared in the May, 1973 issue of Resident-Intern Consultant. Dr. Hakkarinen is married to the former Bonnie Sue Schellinger of Mt. Ranier, Md. and they are the parents of a son, Michael.

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Beverley J. Morgan, '68, Oakland, Cal., was certified by the American Board of Ophthalmology in May, 1975.

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Robert S. Widmeyer, '68, Charlotte, N.C., is completing a year as Chief Resident in Orthopaedic Surgery at Charlotte Memorial Hospital, Charlotte, N.C., and will enter private practice with the Widmeyer-Wingo Orthopedic Clinic, P.A., in Punta Gorda, Florida, July 1, 1975.

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Merrill I. Berman, '62, Baltimore, Md., became board certified in Child Psychiatry in March, 1975.

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Maurice M. Davidson, '61, Media, Pa., is attending neurosurgeon at the Chester-Crozer Hospital, Chester-Crozer Medical Center, Chester, Pa.

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Lois A. Young, '60, Newark, N.J., Associate Professor of Ophthalmology, University of Maryland School of Medicine, was married on April 12, 1975 to Clarence E. Beverly, M.D., Assistant Professor of Anesthesiology at the New Jersey College of Medicine. The bride served her internship at the University of Maryland Hospital and the groom also served his residency at University of Maryland Hospital. The couple plans to work and live in San Diego, California.

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Morton E. Smith, '60, St. Louis, Mo., has been promoted to Professor of Ophthalmology and Pathology, Washington University School of Medicine, St. Louis, Mo. Dr. Smith has been an Associate Professor and will continue in his duties as the Director of The Ophthalmic Pathology Laboratory and Course Director for medical students.

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Morton Mowrer, '59, Baltimore, Md., is Acting-Chief of Cardiology, Sinai Hospital, Baltimore, Maryland.

Edward D. Frohlich, '56, Oklahoma City, Oklahoma, was awarded the George Lynn Cross Research Professorship at the University of Oklahoma.

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David A. Levy, '54, Baltimore, Md., became a Diplomate of the American Board of Allergy and Immunology in 1974. He is also a member of the American Association of Immunologists and a Fellow of the American Academy of Allergy. Dr. Levy has been at the Johns Hopkins Medical Institutions since 1962 and is currently Professor in the Department of Biochemical and Biophysical Sciences of the School of Hygiene and Public Health. A Professor of Epidemiology in the School of Hygiene and Public Health, Dr. Levy also holds an appointment as Assistant Professor in the Clinical Immunology Division of the Department of Medicine. He was also recently appointed to the Allergy and Immunology Research Committee of the National Institute of Allergy and Infectious Diseases.

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Raymond L. Clemmens, '51, Baltimore, Md., recently co-authored a book with Thomas J. Kenny, Ph.D., entitled, "Behavioral Pediatrics and Child Development," which was published by Williams & Wilkins, Co., Baltimore, Md., (1975) Dr. Clemmens is a Professor of Pediatrics, University of Maryland School of Medicine and Director of the Central Evaluation Clinic for Children, University of Maryland Hospital.

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Leonard Bachman, '49, Philadelphia, Pa., Pennsylvania Secretary of Health, spoke at the graduation exercises of the Pennsylvania College of Podiatric Medicine in May in Philadelphia, Pa.

Dr. Bachman, a former resident of Society Hill, is a graduate of the University of Maryland School of Medicine. He is a Fellow of the American College of Anesthesiology, the American College of Chest Physicians and the American Academy of Pediatrics.

He has been on the staff of the U.S. Naval Hospital at Bethesda, Northeast Deaconess Hospital in Boston, Johns Hopkins Hospital, and Children's Hospital in Philadelphia. He has taught at Johns Hopkins Medical School, the University of Pennsylvania School of Medicine, the University of Iowa and Einstein College of Medicine. He is a past president of the Philadelphia and Pennsylvania Societies of Anesthesiologists.

Nathan Schnaper, '49, Baltimore, Md., was named Professor of Psychiatry, University of Maryland School of Medicine in July, 1974, and was elected Fellow, in the American College of Physicians in November, 1974. His recent publications include: "The Psychological Implications of Severe Trauma: The Retrospective Experience of Unconsciousness", Journal of Trauma 15: 94-98, 1975 and an Editorial: "Death and Dying: Has the Topic Been Beaten to Death?" Journal of Nervous and Mental Diseases, 160, 157-158, 1975. Dr. Schnaper received a Citation as a Distinguished Alumnus, Distinguished Physician, Washington College Commencement, in May, 1975.

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Robert E. Bauer, '46, Miami Beach, Fla., was President of the Dade County Society of Internal Medicine for the years '69, '70, '73, '74. Dr. Bauer is the former and present President of the Medical Staff, Miami Heart Institute, 1973-74, 1975-76. Recertified in Internal Medicine in October, 1975, Dr. Bauer holds an appointment as Associate Professor of Clinical Medicine at the University of Miami School of Medicine and is a member of the Florida Society of Internal Medicine Council, 1975-77.

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John M. Dennis, '45, Towson, Md., Dean of the University of Maryland School of Medicine, became Chairman of the Board of Chancellors of the American College of Radiology at the conclusion of its annual meeting in April, 1975, in Portland, Oregon.

For the last two years, he has served as vice chairman of the Board of Chancellors of the College, which is the professional association representing more than 12,000 physicians who specialize in radiology.

After receiving his medical degree from the University of Maryland School of Medicine, Dr. Dennis completed his internship and residency in radiology at the University of Maryland Hospital. He also served a fellowship at the Hospital of the University of Pennsylvania.

He is a trustee of the American Board of Radiology and a member of the scientific advisory Board of Consultants of the Armed Forces Institute of Pathology. He is a former president of the Maryland Radiological Society and the Maryland Division of American Cancer Society.

Dr. Dennis is active in many other local and national medical groups, including the Medical

and Chirurgical Faculty of Maryland, the Baltimore City Medical Society, the American Medical Association, and the Radiological Society of North America.

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Robert E. Wise, '43, Boston, Mass. was elected President of the American College of Radiology at its annual meeting in April, 1975.

Dr. Wise is Chairman of the Department of Diagnostic Radiology at Lahey Clinic Foundation in Boston, and also serves as Chairman of the Departments of Radiology at two Boston area hospitals, New England Baptist and Brooks.

He has been Chairman since 1973 of the Board of Chancellors of the ACR, which is the professional association representing more than 12,000 physicians who specialize in the use of x-rays and radioactive substances for diagnostic and therapeutic purposes.

After receiving his medical degree from the University of Maryland School of Medicine, Dr. Wise interned at the U.S. Naval Hospital in Philadelphia, and served his residency in radiology at the Cleveland Clinic Foundation.

He is the immediate Past President of the Radiological Society of North America, the largest scientific radiological group in North America. Dr. Wise also has served as President of the New England Roentgen Ray Society, the Eastern Radiological Society, the Massachusetts Radiological Society, and the American Association of Clinic Radiologists.

He is an active member of many other local and national medical organizations, including the American Medical Association, the Massachusetts Medical Society, and the American Gastroenterological Association.

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Schuyler G. Kohl, '40, Scarsdale, N.Y., Professor of Obstetrics and Gynecology, Down State Medical Center, State University of New York, has been elected President of the Association of Planned Parenthood Physicians.

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Aaron Feder, '38, Jackson Heights, N.Y., has been elected to Honorary Membership in Alpha Omega Alpha by the Cornell Chapter. Dr. Feder is Clinical Professor of Medicine at Cornell, Attending Physician at The New York Hospital and Long Island Jewish Hospital, and a consulting physician to the North Shore University Hospital, Booth Memorial Hospital and Long Beach Memorial Hospital.

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Louis J. Kolodner, '36, Baltimore, Md., Assistant Professor of Surgery at Johns Hopkins University, has been elected President-Elect of the Baltimore City Medical Society, and is serving as Medical Director and President of the Baltimore City Professional Standards Review Organization. Dr. Kolodner was invited to give a scientific paper at the International Congress of Gerontology in Jerusalem, Israel in June, 1975.

FACULTY NEWS

New Appointments, Promotions, and Resignations

Miriam Sandbank, M.D., Clinical Associate Professor—PATHOLOGY (appointment effective 11-1-74)

Gary A. Belaga, M.D., Clinical Instructor — NEUROLOGY (appointment effective 1-1-75)

Matti A. Pentilla, M.D., Assistant Professor — PATHOLOGY (appointment effective 7-1-74)

Howard D. Dorfman, M.D., Associate Professor—SURGERY (appointment effective 1-1-75)

Sohrab Mobarhan, M.D., Assistant Professor — MEDICINE (appointment effective 1-1-75)

Roland S. Aronson, M.D., Assistant Professor — PATHOLOGY (appointment effective 1-1-75)

Estela M. Abosch, M.A., Clinical Instructor — PSYCHIATRY (appointment effective 1-20-75)

Elena M. del Campillo, B.S., Associate — BIOPHYSICS (appointment effective 2-1-75)

Syed M. Hasan, M.S., Research Associate — BIOCHEMISTRY (appointment effective 4-28-75)

S. David Gertz, Ph.D., Research Associate — NEUROLOGY (appointment effective 3-17-75)

Perinklan V. Vedanrayanan Ph.D., Research Associate—PHARMACOLOGY & EXPERIMENTAL THERAPEUTICS (appointment effective 4-1-75)

Abdul A. Waheed, Ph.D., Research Associate — BIOLOGICAL CHEMISTRY (appointment effective 4-15-75)

George A. Lentz, Jr., M.D., Associate Professor—REHABILITATION MEDICINE (joint promotion effective 7-1-75)

Arthur J. Lesser, M.Ph., Professor—PEDIATRICS, resigned.

Morton Katz, Instructor—PEDIATRICS, resigned.

Marilyn Kay Cosby, D.D.S., Instructor — PEDIATRICS, resigned.

C. Alex Alexander, Ph.D., Associate Professor — SOCIAL & PREVENTIVE MEDICINE, resigned 3-31-75.

Louis P. Matthei, M.D., Assistant Professor — RADIOLOGY, resigned 3-15-75.

Moritz Michaelis, Ph.D., Professor — OPHTHALMOLOGY, deceased 4-5-75.

Ephraim T. Lisansky, M.D., Clinical Professor — PSYCHIATRY (promotion effective 7-1-75)

Prasanna Nair, M.D., Associate Professor — PEDIATRICS (promotion effective 7-1-75)

Lauretta Bender, M.D., Clinical Professor — PSYCHIATRY (appointment effective 4-1-75)

Harold Lloyd Kennedy, M.D., Clinical Assistant Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 1-1-75)

John Leake Pitts, Jr., M.D., Assistant Professor — SOCIAL & PREVENTIVE MEDICINE (appointment effective 1-1-75)

Stanley Leonard Rodbell, M.S.W., Instructor — PSYCHIATRY (appointment effective 3-1-75)

Jose G. Duarte, M.D., Assistant Professor — ANESTHESIOLOGY (promotion effective 7-1-75)

Patrick J. Canning, Associate — OBSTETRICS/ GYNECOLOGY — resignation effective 4-25-75.

ALUMNI NEWS REPORT

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• Class _____

Send To: George H. Yeager, M.D.
Editor, Alumni Bulletin
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School of Medicine
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November, 1975

BULLETIN

university of maryland school of medicine



DEPARTMENT OF MEDICINE



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COVER: The front cover depicts the lineage of the chair of the Department of Medicine from Nathaniel Potter, M.D., Professor of the Practice and Theory of Medicine to Theodore E. Woodward, M.D., present Professor and Head of the Department of Medicine.

BULLETIN

university of maryland school of medicine

November, 1975

Vol. 60

No. 4

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Photos: Philip Szczepanski



Theodore E. Woodward, M.D.
Professor and Head
Department of Medicine
1954-

This annual report of the Department of Medicine is dedicated by his faculty to Dr. Theodore E. Woodward in his 21st year as the head of the Department. Although Dr. Woodward's service to the University of Maryland School of Medicine, to the University of Maryland Hospital, to the community, to the State, and to national and international medicine is a record of uninterrupted dedication and accomplishment, the growth of the Department of Medicine over the past two decades under his stewardship reflects his qualities and achievements. This brief account of the progress of the Department of Medicine expresses the tribute and affection of his staff.

DEPARTMENT OF MEDICINE 1954-1975

Dr. Theodore E. Woodward was appointed the first full-time Professor and Head of the Department of Medicine in July, 1954. At that time, there were 96 medical students per class and less than 10 house officers in the Department. There were four sections of the Department—Infectious Diseases, Dermatology, Radioisotopes and Cardiology.

During the intervening years, the University of Maryland School of Medicine has undergone tremendous growth and the Department of Medicine has become the largest department. There are now 48 full-time faculty members and 10 Divisions of the Department, all of which have been under the direction of full-time faculty except Dermatology. The new Divisions which have been created are Hematology, Endocrinology and Metabolism, Nephrology, Rheumatology, Pulmonary Diseases, and Gastroenterology. Neurology was at first a Division of Medicine, but then became a separate department.

Each Division has specialized laboratory facilities and there are ongoing research programs in each Division. There are 44 Fellows in the Department. In recent years, support for Fellows has become more difficult because of the demise of training grants from the National Institutes of Health and restriction of research fellowships.

There are now 165 medical students per class and 62 house officers in the Department. The original budget for the Department was less than \$200,000, whereas today it is just under 2 million dollars. There is a general medical clinic, as well as specialty clinics run by all the Divisions, and the Department runs a Primary Care Clinic in conjunction with the Department of Social and Preventive Medicine. The Clinical Study Center opened in 1962 and received federal financing until 1970. This area, with patients and adjacent laboratories, made special studies possible and it is still being operated in a limited fashion.

Volunteer facilities have been established at the Maryland House of Correction and within the University of Maryland Hospital. Significant findings from studies at these facilities have increased our understanding of the pathogenesis, prevention and therapy of enteric infections, tularemia, malaria and respiratory viral diseases. A Coronary Care Unit is managed by the Division of Cardiology; all patients with suspected myocardial infarction are admitted to this unit and students and house officers obtain experience in specialized techniques. A dialysis unit is in full operation and

there is a full-time renal transplant team operated jointly with the Department of Surgery.

In 1969, the Department of Medicine took over the operation of the Medical Service at the Veterans Administration Hospital on Loch Raven Boulevard. The latter subsequently came under the direction of Dr. Morton Rapoport and there are several full-time faculty members at this facility which has become an essential and integral part of the teaching program. Many students obtain their training in internal medicine at this hospital and all house officers rotate through its service.

During the years, space for the rapidly growing activities of the Department was a premium. In early 1973, the new North Hospital Building opened and this has provided an enlarged area for all of the clinics, as well as offices for faculty and special treatment rooms. In 1976, an addition to Howard Hall will be opened which will provide more research laboratories for all departments.

The Department of Medicine maintains affiliations with Maryland General Hospital, Mercy Hospital, York Hospital, Montebello State Hospital and South Baltimore General Hospital. Fellows and house officers from these institutions receive periods of specialized training at the University of Maryland Hospital and some students receive their training in medicine at these institutions. The Department of Medicine has participated in courses of continuing education sponsored by the American College of Physicians and also many Divisions have organized one or two day programs for practicing physicians. More than 25 of our former students and house officers have been appointed to academic positions in prominent schools of medicine throughout the nation.

In a few years, each medical school class will be increased to 200 students per class. This will require additional faculty and facilities so that the Department of Medicine may continue to provide first-class teaching, patient care and research activities.

Dr. Woodward's contributions to this exponential growth of the Department and the School of Medicine were recognized by the Alumni Honor Award and Gold Key. His personal dedication to undergraduate and graduate teaching which he inculcates into his faculty by example are evidenced by the numerous times he has received the Golden Apple Award for clinical teaching and for the huge segment of time that he gives to teaching and attending rounds.

DEPARTMENT OF MEDICINE

ANNUAL REPORT

OPERATING PLAN AND IDEOLOGY OF THE DEPARTMENT

Teaching the broad and specific principles of Internal Medicine to students and house staff, rendering thorough patient care, and conducting clinical and applied basic research are the department's paramount objectives. These cannot be accomplished unless patients are studied thoroughly utilizing modern medical techniques only when indicated and conducted within an environment of scholarship and sound investigative objectives. In General Medicine, we aim to train a competent and undifferentiated physician who can serve as the patient's primary doctor. His training embraces experience and ultimate capability in rendering comprehensive and continuing care. Later in this report the department's contribution to a program of training in General Medicine is given.

Each subspecialty group is expected to practice the general principles of Medicine and perform specialized techniques and research in keeping with current practices.

Attending physicians are urged to stress practical aspects of diagnosis and to utilize definitive techniques which are often performed or supervised by consultative subspecialty teams. Emphasis is placed upon bedside care and teaching with stress upon proper protection of the dignity and rights of the patient.

EDUCATION

A. Preceptor Course in Introductory Medicine (Physical Diagnosis)

The current clinical course of instruction for the sophomore course in Introductory Medicine, initially called Physical Diagnosis, began as a pilot tutorial study in September, 1959, and expanded to accommodate larger numbers of students in 1960, 61 and 62. Initially, to determine whether the program would benefit students, four candidates were assigned to the departmental chairman and four to Dr. George Entwisle, for an entire year. During 1961-63, additional preceptor groups were tutored by Doctors Greisman, Storey and Koons.

The weekly sessions, conducted throughout the entire academic year, stressed elaboration of the medical history, performance of a thorough physical examination, and the practical application of

the basic sciences with particular emphasis upon mechanisms of disease. Initially, the students who chose this elective studied an Introductory Medicine text during the prior summer, and, at the beginning of the academic year, patient-oriented conferences were held weekly. After several initial sessions, which stressed normal findings through examination within the group, each student was assigned a patient weekly and expected to take a complete history and to perform a thorough physical examination. The group of four students and preceptor met regularly for comprehensive discussions which included elaboration of the pertinent aspects of the medical history and physical findings, and a discussion of the organ system involved, including the pathophysiology which related to the signs and symptoms. After several months, extemporary presentations were expected including discussions of special library assignments. Interpretation of the historical features and physical findings were stressed which included laryngoscopic and sigmoidoscopic examination. Each student who elected this special tutorial course was expected to successfully perform his regular sophomore course work.

The Pilot Study was highly successful and well accepted by students and preceptors in spite of the time required by the individual faculty member. Each student felt that his general knowledge of medicine and of the basic sciences was broadened. An important ancillary feature of the program is the opportunity for the preceptor to assume the role as Faculty Counselor for the student.

Many student preceptees looked upon this special opportunity as a stimulus to pursue clinical research studies during summer sessions and free time which served them well during their career development. The primary objective of the program was to develop academic curiosity, accelerate relevant medical knowledge, and inculcate sound principles of scholarship and dedicated medical competence.

In the mid 1960's, the curriculum was changed to allow teaching of Introductory Medicine throughout the entire sophomore year. Preceptor-preceptee groups were formed with an instructor for four students. Faculty members, senior house officers, and fellows serve as faculty-preceptors. Until 1975, other time, within the framework of the course, was allotted to other

clinical disciplines which included pediatrics, neurology, ophthalmology, ear, nose and throat, preventive and rehabilitation medicine. The Department of Medicine served as conductor of the course which included whole class lectures and student-faculty small group sessions one-half day weekly. Beginning in the academic session of 1975, the Department of Medicine has been allotted the time to instruct one-half of the sophomore class each on Thursday and Friday afternoons.

The format of student-faculty small group teaching sessions and selected lectures and demonstrations initiated in 1959 will serve as the basis for this important course.

B. Clinical Clerkship in General Medicine

1. Junior Clerkship

The goals during the junior clinical clerkship are to guide the student in elaboration of a complete medical history and performance of a thorough physical examination through his work under guidance with patients in the hospital. Contact with patients is direct through his participation as a member of the medical team which includes a senior attending physician, medical resident, medical intern, and senior student. The clerk assists in the complete clinical study of patients when he is taught to separate complex problems into individual components, how to elucidate the pathophysiologic considerations, how to organize the specific and interrelated problems for solution, and how to comprehensively follow the patient as problems are resolved.

Within the activity of the teaching medical unit, the clinical clerk assumes responsibility for the care of the patient in a manner which simulates actual medical practice. Activities consist of dedicated and sustained work with intimate involvement in clinical analysis of the patient's problem. This provides him numerous opportunities for educational growth and personal satisfaction. With sustained experience as a team member, the clinical clerk adapts to the system and gradually gains confidence in himself with increased efficiency in performance.

Training focuses upon the patient with each clinical clerk assigned two to three new patients weekly and gives opportunity for him to care for and follow not more than four patients simultaneously.

The clinical clerk collects the data base of medical history, physical findings, and laboratory values for each of his assigned patients. He is assisted

in this important endeavor by the senior student and medical intern. The clinical clerk is expected, after proper indoctrination and experience, to perform the initial examination and collection of data, particularly in patients with non-emergent medical problems.

Each day at specified times, the medical house staff reviews the data base for its thoroughness and accuracy when the medical team as such formulates its full problem list and initial plan of study and management. The faculty, attending physician is responsible for supervising the study, diagnosis, and management of patients assigned to his service and monitors the clinical evaluation and therapy of each patient. He is expected to teach the best current principles of medicine within the context of the patient's problem.

Educational growth of the clinical clerk takes place within the framework of the daily system through his participation in the specialized analysis of diagnostic procedures under sponsorship of the medical house staff and specialty consultants, and in his observation of medical activities throughout the service. The clerk, under supervision, prepares progress notes as often as appropriate. This work is checked for accuracy and thoroughness.

Participation by the clinical clerk in seminars, specialty conferences, and medical grand rounds are ancillary exercises designed to assist him in scholarly growth and practical application of fundamental knowledge. The clinical clerkship extends over nine weeks which could be profitably extended to a full twelve weeks.

Evaluation is based upon daily clinical performance of the basic clinical skills (collection of data base), demonstration of understanding mechanisms of illness, and ability to solve simple and complicated problems. Such traits as attitude, application to work, personal relationships with patients and others are constantly under scrutiny by the medical resident and attending physician. Comprehensive conferences are held by attending physicians with small groups of clinical clerks at the end of each tour. These are designed as teaching sessions which test broad general knowledge in medicine and permit evaluation of a student's ability to analyze data and to communicate his views. A written examination is given to test breadth of comprehensive knowledge rather than competence in specific details.

2. Senior Clerkship

Senior medical students are assigned to the medical teaching units on the third floor and private service. A majority of the class elect general

medicine as a part of their curricular program with an average experience of eight weeks. They work within the framework of the medical unit, as described under the junior clerkship. They function as student interns. Their responsibilities simulate those of the medical intern with whom they work in collaboration. These include individual work-ups on patients, performance of accepted clinical diagnostic procedures under supervision and design of management. Each student is evaluated in relation to his individual performance. There is no final oral conference or written examination; students are encouraged to take the National Board Examination, which is not a school requirement.

C. Medical Residency Training Program

The medical service includes the teaching hospital service (90 beds), the private medical service (90-110 beds), the Baltimore Veterans Administration Hospital (160 beds), and the ambulatory outpatient clinics, including the emergency room and the primary care clinics.

I. The Teaching Service

A. Third Medical Floor

The teaching service is supervised by the Head of the Department of Medicine who serves during most of the year as Chief of Staff. During part of the year, this function is performed by a senior member of the department. The Head of Medicine at the Veterans Administration Hospital serves in a like manner.

The Chief of Staff is directly responsible for the teaching service and the care of patients on that service. He conducts a consultative round weekly and participates in the weekly Medical Grand Rounds.

Administratively, attending physicians are immediately below the Chief of Staff. Attending physicians are assigned to each service on a nine week rotation, conduct teaching rounds on the service at least three times weekly and participate in Grand Rounds. They are responsible for the care of patients, the teaching of house officers and students and actively participate in the departmental conferences.

Each service at present is staffed by an Assistant Resident, an intern, a senior student, and a group of four or five junior medical students.

The Directors of specialty divisions of the Department of Medicine act as consultants in their special fields and conduct weekly conferences. The specialty divisions are cardiology, dermatology, gastroenterology, hematology, infectious dis-

eases, nuclear medicine, nephrology, pulmonary diseases and rheumatology.

B. The Private Service

The private service is composed of the private patients of those members of the Department of Medicine who have privileges to admit patients to the University of Maryland Hospital. The service is divided into teaching units which function similarly to the third medical floor. A full-time member of the faculty serves as Chief of the Private Service. He is responsible for directing the teaching program and integrates the activities of the private service with the departmental activities. Interns and assistant residents are expected to attend Grand Rounds, special seminars and conferences.

D. Other Schools

During 1974-75, the Department of Medicine assumed the responsibility for teaching the principles of general medicine to students of the School of Dentistry and School of Pharmacy. Various members of the Department of Medicine presented course work in the Principles and Application of Medicine and gave instructions in the technique of physical diagnosis.

E. Postgraduate Programs

Members of the Department of Medicine and its various subspecialty divisions sponsor and participate actively in postgraduate programs of the School of Medicine and Hospital. Rather than designate the special courses conducted during the year 1974-75, this issue will indicate those events programmed from September, 1975, through the *Bicentennial Celebration Year of 1976*.

1. Tuesday Noon Conferences in Various Medical Disciplines and Applied Basic Science for the Year 1975-76 by Prominent Alumni and Former Members of the House Staff and Faculty. Tuesday, 11:30 a.m., Gordon Wilson Hall until December, 1975; Davidge Hall through 1976.

September 23, 1975

Herbert L. DuPont, M.D., Professor and Director, Program in Infectious Diseases and Clinical Microbiology, The University of Texas, Houston
"Etiology and Management of Acute Diarrhea"

Jonas A. Shulman, M.D., Professor of Medicine and Head, Division of Infectious Diseases, Emory University School of Medicine, Atlanta
"Serious Candida Infection: Pathogenesis, Diagnosis and Therapy"

October 21

Abraham M. Lilienfeld, M.D., Professor of Epidemiology, The Johns Hopkins School of Hygiene and Public Health, Baltimore
"Epidemiology as a Tool in Internal Medicine"

November 11

The Julius Friedenwald Memorial Lecture
Stanley E. Bradley, M.D., Samuel Bard Professor of Medicine, College of Physicians and Surgeons of Columbia University, New York
"Recent Advances in Hepatology"

January 27, 1976

The Charles Getz, M.D. Memorial Lecture
Edward D. Frohlich, M.D., George Lynn Cross Research Professor, University of Oklahoma Health Sciences Center, Oklahoma
"The Pathophysiology and Treatment of Hypertensive Disease"

February 17

The Phi Delta Epsilon Lecture
David M. Kipnis, M.D., Professor and Chairman, Department of Medicine, Washington University School of Medicine, St. Louis
"A Physiological Approach to the Pathophysiology of Clinical Hypoglycemia"

March 16

F. Mason Sones, M.D., Senior Physician, Department of Cardiology, Cleveland Clinic, Cleveland
"Cardiac Blood Supply in Health and Disease"

April 13

Allen R. Myers, M.D., Associate Professor of Medicine, Chief, Rheumatology Section, University of Pennsylvania, Philadelphia
"Systemic Lupus Erythematosus: Current Concepts"

April 27

The Alice Band Memorial Lecture
Philip D. Zieve, M.D., Physician-in-Chief, Baltimore City Hospital, Associate Professor of Medicine, Johns Hopkins University School of

Medicine and University of Maryland School of Medicine
"Immune Thrombocytopenic Purpura"

May 11

James J. Cerda, M.D., Associate Professor of Medicine, University of Florida College of Medicine, Gainesville
"Part I. Malabsorption and Maldigestion"
Phillip P. Toskes, M.D., Associate Professor of Medicine, University of Florida College of Medicine, Gainesville
"Part II. Malabsorption and Maldigestion"

July 20

Louis R. Caplan, M.D., Director, Department of Neurology, Beth Israel Hospital, Boston
"The Etiology and Control of Cerebral Apoplexy"

August 10

Robert J. Myerburg, M.D., Professor of Medicine, Director, Division of Cardiology, University of Miami School of Medicine
"The Current Status of Cardiac Diagnosis and Treatment"

September 14

The Charles Getz, M.D. Memorial Lecture
Joseph H. Holmes, M.D., Professor of Medicine and Radiology, Director, Ultra Sound Laboratory, University of Colorado Medical Center, Denver
"Tissue Characterization by Ultra Sound"

October 12

The Alice Band Memorial Lecture
Michael B.A. Oldstone, M.D., Professor of Immunopathology, Scripps Clinical and Research Foundation, Professor of Neurosciences and Pathology, University of California School of Medicine, San Diego
"Virus Antibody Immune Complex Disease"

November 16

The Julius Friedenwald Memorial Lecture
T. Kenney Gray, M.D., Associate Professor of Medicine, Associate Director, Clinical Research Unit, The University of North Carolina, School of Medicine at Chapel Hill
"Hormonal Control of Calcium Absorption"

2. *The Nineteenth Maurice C. Pincoffs Lecture*
Monday, December 1, 1975—Davidge Hall,
8:15 p.m.

Lewis Thomas, M.D., President, Sloan-Kettering
Cancer Center, New York
"The Problem of Self in Biology"

Former Pincoffs Lecturers

1957 Dr. Joseph E. Smadel
1958 Dr. George W. Thorn
1959 Dr. Irvine H. Page
1960 Dr. Bernard J. Alpers
1961 Dr. John H. Dingle
1962 Dr. Jerome W. Conn
1963 Dr. Julius H. Comroe, Jr.
1964 Dr. Arnold S. Relman
1965 Dr. Eugene A. Stead, Jr.
1966 Dr. Alfred Gellhorn
1967 Dr. Albert H. Coons
1968 Dr. William B. Bean
1969 Dr. Robert A. Good
1970 Dr. John H. Knowles
1971 Dr. Eugene Braunwald
1972 Dr. Marvin D. Siperstein
1973 Dr. Charles H. Rammelkamp
1974 Dr. David M. Kipnis

F. Special Postgraduate Programs in Medicine in Continuing Education

1. October 4, 1975

Three State Regional Meeting of the American College of Physicians. Davidge Hall
Course Director: Dr. Richard B. Hornick,
Governor for Maryland
Meeting open to Members, Fellows and Associates of the College and to all physicians, house officers and students.

2. October 25 and 26

Internal Medicine: A Weekend Review.
Course Directors: Dr. Barry Schlossberg,
Dr. Harold Standiford and Dr. Morton Rapoport.

3. December 5 and 6

The General Practitioner in the Treatment of Alcoholism.

Course Directors: Dr. Willem Bosma and Dr. Frank Iber

4. February 12-14, 1976

Dermatology Days.

Course Director: Dr. Harry M. Robinson, Jr.

5. March 5 and 6

Gastroenterology: Management of the Problem Patient.

Course Directors: Dr. Richard Baum and Dr. Frank Iber

6. March 25-27

Advances in Clinical Oncology Including Diagnosis and Management.

Course Directors: Dr. Peter Wiernik and Dr. Theodore E. Woodward

7. May 10-12

Practical Intern Medicine: Advances and Review. (Co-sponsorship with the American College of Physicians) Hilton Inn, Annapolis, Maryland.

Course Directors: Dr. Morton Rapoport, Dr. Harold Standiford and Dr. Theodore E. Woodward

8. Ongoing

Visiting Practitioner Preceptorship Program. (By Arrangement)

Course Director: Dr. Ephraim T. Lisansky

G. Scientific Program of the University of Maryland Hospital Association, December 7, 1976, Davidge Hall by Former Staff Members and Alumni—Bicentennial Celebration

1. N. David Charkes, M.D., Professor and Chairman, Section of Nuclear Medicine, Temple University Health Sciences
"The Impact of Radioisotope Bone Scans on Medical Practice"

2. Mario R. Garcia-Palmieri, M.D., Professor and Chairman, Department of Medicine, University of Puerto Rico
"The Spectrum of Cardiac Disorders in Puerto Rico"

3. Norton Spritz, M.D., Director of Medicine, Manhattan Veterans Administration Hospital, Professor of Medicine, New York University College of Medicine
"Mechanisms in the Development of the Complications of Diabetes Mellitus"

4. Thomas B. Turner, M.D., Dean Emeritus of the Medical Faculty of the Johns Hopkins University
"Reflections on Medical Education"

5. David A. Levy, M.D., Assistant Professor of Medicine, Johns Hopkins Medical Institutions
"A Decade with IgE"

6. John Z. Bowers, M.D., President Josiah Macy, Jr. Foundation New York
"Historical Influences in the Development of American Medicine"

7. Fred R. McCrumb, Jr., M.D., The Fogarty International Center National Institutes of Health
"America's Health Research Overseas"

8. Arthur H. Schmale, Jr., M.D., Professor of Psychiatry, Associate Professor of Medicine, The Strong Memorial Hospital, University of Rochester, New York
"Psychic Controls of Somatic Functioning"

9. Kenneth Zierler, M.D., Professor of Medicine and Physiology Johns Hopkins University
"Function of Cell Membranes in Health and Disease"

10. Richard P. Wenzel, M.D., Assistant Professor of Medicine, University of Virginia School of Medicine, Hospital Epidemiologist, University of Virginia Hospital
"Hospital Acquired Infections"

11. Leonard J. Morse, M.D., Clinical Assistant Professor of Medicine, University of Massachusetts Medical School
"Epidemiologic Practice Outside of the Ivory Tower"

H. Medical Grand Rounds for the Year 1974-75 Included the Following Programs

1974

July 9

"HEAT STROKE"

Discussed by:

Dr. Sheldon E. Greisman, Professor of Medicine, Division of Infectious Diseases — UMSM

July 16

"HEPATORENAL SYNDROME"

Presented by:

Dr. F. Lawrence Dewberry, Intern in Medicine — UH

Discussed by:

Dr. Frank L. Iber, M.D., Professor of Medicine, Head, Division of Gastroenterology — UMSM, BVAH

July 23

"PULMONARY TUBERCULOSIS"

Presented by:

Dr. Daniel C. Hardesty, Junior Assistant Resident in Medicine — UH

Discussed by:

Dr. Charles B. Payne, Jr., Assistant Professor of Medicine, Division of Pulmonary Diseases — UMSM

"CONSTRICTIVE PERICARDITIS"

Presented by:

Dr. Charles G. Elliott, Junior Assistant Resident in Medicine — UH

Discussed by:

Dr. Theodore E. Woodward, Professor and Head, Department of Medicine — UMSM

July 30

"RENAL VEIN THROMBOSIS"

Presented by:

Dr. Charles B. Hatton, Intern in Medicine — UH

Discussed by:

Dr. Andrew Nowakowski, Assistant Professor of Medicine, Division of Nephrology — UMSM

August 6,

"HEREDITARY SPHEROCYTOSIS"

Presented by:

Dr. A. Robert Masten, Junior Assistant Resident in Medicine — UH

Discussed by:
Dr. Rouben M. Jiji, Associate Professor of
Medicine, Division of Hematology — UMSM

"CONCEPTS IN DIAGNOSIS AND MANAGEMENT OF HODGKIN'S DISEASE"

Discussed by:
Dr. Peter H. Wiernik, Associate Professor of
Medicine, Head, Department of Medicine of
the Baltimore Cancer Research Center —
UMSM

August 13,

"INFECTION IN THE RENAL TRANSPLANT PATIENT"

Presented by:
Dr. Jeffrey Stuart Sollins, Intern, Department
of Medicine
Discussed by:
Dr. Richard B. Hornick, Professor of
Medicine, Head, Division of Infectious Dis-
eases — UMSM

August 20,

"ERYTHEMA MULTIFORME"

Presented by:
Dr. Daniel C. Hardesty, Junior Assistant Resi-
dent in Medicine
Discussed by:
Dr. Harry M. Robinson, Jr., Professor and
Head, Division of Dermatology — UMSM

"WOLF-PARKINSON-WHITE SYNDROME"

Presented by:
Dr. John Misiti, Junior Assistant Resident in
Medicine
Discussed by:
Dr. Kenneth S. Gimble, Assistant Professor of
Medicine, Division of Cardiology — UMSM

September 10, 1974

"PROSTHETIC HEART DISEASE"

Presented by:
Dr. Mark M. Applefeld, Chief Resident in
Medicine
Discussed by:
Dr. Bernadine Bulkly, Fellow in Medicine in
Cardiology, Johns Hopkins Hospital

"TULAREMIA"

Presented by:
Dr. Jerry Sterner, Resident in Family Practice
Discussed by:
Dr. Theodore E. Woodward, Professor and

Head, Department of Medicine — UMSM

September 17,

"SYNDROME OF INAPPROPRIATE ADH"

Presented by:
Dr. John Misiti, Junior Assistant Resident in
Medicine
Discussed by:
Dr. Luis G. Martin, Assistant Professor of
Medicine, Division of Endocrinology and
Metabolism — UMSM

September 24,

BREAST CARCINOMA: OPERATIVE MANAGEMENT"

Presented by:
Dr. Jeffrey S. Sollins, Intern in Medicine
Discussed by:
Dr. Harry C. Hull, Professor of Surgery —
UMSM

"CHEMOTHERAPEUTIC REGIMENS"

Discussed by:
Dr. Stephen C. Schimpff, Assistant Professor
of Medicine, Baltimore Cancer Research
Center — UMSM

October 1,

"PEMPHIGUS VULGARIS — DIAGNOSIS AND THERAPY"

Presented by:
Dr. John Misiti, Junior Assistant Resident in
Medicine
Discussed by:
Dr. Harry M. Robinson, Jr., Professor of
Medicine, Head, Division of Dermatology —
UMSM

"HYPERTHYROIDISM — TREATMENT WITH BETA BLOCKAGE"

Presented by:
Dr. Daniel C. Hardesty, Junior Assistant Resi-
dent in Medicine — UMSM
Discussed by:
Dr. John G. Wiswell, Professor of Medicine —
UMSM
Dr. Fredrick C. Kauffman, Associate Professor
of Cell Biology and Pharmacology — UMSM

October 8,

"PATHOGENESIS OF ISCHEMIC HEART DISEASE"

Discussed by:
Dr. William C. Roberts, Chief, Section of

Pathology, National Heart and Lung Institute — NIH, Clinical Professor of Pathology and Medicine, Georgetown University School of Medicine

October 15,

"GULLAIN-BARRE SYNDROME"

Presented by:

Dr. James W. Pitts, Junior Assistant Resident in Medicine — UMSM

Discussed by:

Dr. George D. Yannakakis, Head, Department of Neurology, Baltimore V.A. Hospital
Clinical Associate Professor, Department of Neurology — UMSM

"CHOLEDOCHODUODENAL FISTULA"

Presented by:

Dr. Frederick L. Dewberry, Intern in Medicine

Discussed by:

Dr. Richard A. Baum, Assistant Professor of Medicine, Division of Gastroenterology — UMSM

October 22

"PRIMARY MYOCARDIAL DISEASE — CURRENT CONCEPTS"

Presented by:

Dr. Marc A. Mugmon, Junior Assistant Resident in Medicine

Discussed by:

Dr. Mark M. Applefeld, Chief Resident in Medicine — UMSM

October 29

"TOPHACEOUS GOUT — PATHOGENESIS AND THERAPY"

Presented by:

Dr. Daniel C. Hardesty, Junior Assistant Resident in Medicine

Discussed by:

Dr. Leonard H. Frank, Professor, Biological Chemistry — UMSM

Dr. Jean M. Jackson, Assistant Professor of Medicine, Head, Division of Rheumatology — UMSM

"SICKLE CELL DISEASE"

Presented by:

Dr. Jeffrey Pargament, Intern in Medicine

Discussed by:

Dr. Sheldon Amsel, Assistant Professor of Medicine, Division of Hematology — UMSM

November 5

"PNEUMOMEDIASTINUM"

Presented by:

Dr. Martin Magram, Resident in Medicine, Mercy Hospital

Discussed by:

Dr. Louis E. Grenzer, Instructor, Department of Medicine, Division of Cardiology — UMSM

"HYPOPIUITARISM"

Presented by:

Dr. William A. Valente, Intern in Medicine

Discussed by:

Dr. Thomas B. Connor, Professor of Medicine, Head, Division of Endocrinology and Metabolism, Director, Clinical Study Center — UMSM

November 12

"SUPERIOR VENA CAVA SYNDROME"

Presented by:

Dr. Clifford R. Merchant, Junior Assistant Resident in Medicine

Discussed by:

Dr. Michael G. Hayes, Associate Head, Division of Pulmonary Diseases, Maryland General Hospital, Instructor in Medicine — UMSM

Dr. Wolfgang J. Mergner, Associate Professor and Head Autopsy Services — Pathology — UMSM

"POTT'S DISEASE"

Presented by:

Dr. John Misiti, Junior Assistant Resident in Medicine

Discussed by:

Dr. Harold C. Standiford, Staff Physician, Infectious Diseases Division, Baltimore V.A. Hospital, Assistant Professor of Medicine — UMSM

November 19

"THE JULIUS FRIEDENWALD MEMORIAL "THE ROLE OF FIBROSIS IN THE CHRONICITY OF LIVER DISEASE"

Discussed by:

Dr. Hans Popper, Gustave L. Levy, Distinguished Service Professor, Mount Sinai School of Medicine

November 26

"AUSCULTATORY ROULETTE"

Discussed by:

Dr. W. Proctor Harvey, Professor of Medicine, Director, Division of Cardiology, Georgetown University Hospital, Washington, D.C. Visiting Professor of Medicine, University of Maryland School of Medicine

December 3

"MENINGOCOCCAL ARTHRITIS AND MENINGITIS"

Presented by:

Dr. Irvin M. Cohen, Assistant Resident in Medicine

Discussed by:

Dr. Robert T. Parker, Chief of Medicine, Good Samaritan Hospital, Associate Professor of Medicine — UMSM

"CULTURE NEGATIVE ENDOCARDITIS"

Presented by:

Dr. Daniel C. Hardesty, Junior Assistant Resident in Medicine

Discussed by:

Dr. Jay S. Goodman, Assistant Chief of Medicine, Mercy Hospital, Associate Professor of Medicine — UMSM

December 10

"HYPERTENSION — WHERE HAVE WE BEEN; WHERE ARE WE GOING"

Discussed by:

Dr. George Entwisle, Professor of Preventive Medicine, Associate Professor of Medicine — UMSM

"TUBERCULOSIS PERITONITIS — A NOT UNCOMMON ENTITY"

Presented by:

Dr. James W. Pitts, Jr., Junior Assistant Resident in Medicine

Discussed by:

Dr. Theodore E. Woodward, Professor and Head Department of Medicine — UMSM

December 17

"THE OUTCOME OF GRANULOMATOUS BOWEL DISEASE"

Discussed by:

Dr. Richard G. Farmer, Chairman, Department of Gastroenterology, Cleveland Clinic Foundation, Cleveland, Ohio

1975

January 7

"PELLAGRA"

Presented by:

Dr. John Misiti, Junior Assistant Resident in Medicine

Discussed by:

Dr. Irving D. Wolfe, Instructor in Medicine in Dermatology — UMSM

"NEPHROGENIC DIABETES INSIPIDUS"

Presented by:

Dr. Alfred J. Saah, Junior Assistant Resident in Medicine

Discussed by:

Dr. Luis G. Martin, Assistant Professor of Medicine, Division of Endocrinology and Metabolism — UMSM

January 14

**THE ALICE BAND MEMORIAL LECTURE
"POLYCYTHEMIA: VARIOUS FORMS AND MECHANISMS"**

Discussed by:

Dr. C. Lockard Conley, Professor of Medicine, Johns Hopkins University School of Medicine

January 21

"DRUG INDUCED HEPATITIS"

Discussed by:

Dr. Hyman Zimmerman, Chief, Medical Service, Washington V.A. Hospital, Professor of Medicine, George Washington University Hospital, Washington, D.C.

January 28

"ABDOMINAL AORTIC ANEURYSM"

Presented by:

Dr. Karen M. Lichtenfeld, Assistant Resident in Medicine

Discussed by:

Dr. Joseph S. McLaughlin, Professor and Head, Thoracic and Cardiovascular Surgery — UMSM

"RHEUMATOID ARTHRITIS"

Presented by:

Dr. Frederick L. Dewberry, Intern in Medicine

Discussed by:

Dr. Jean M. Jackson, Assistant Professor of Medicine, Head, Division of Rheumatology — UMSM

February 4

"THE MEDICAL HOUSE OFFICERS LECTURE"
"TECHNOLOGICAL BREAKTHROUGHS IN RADIOLOGY"

Discussed by:

Dr. Henry N. Wagner, Jr. Professor of Medicine, Professor of Radiology and Radiation Health, Chief, Nuclear Medicine, Johns Hopkins University School of Medicine and Hospital

February 11

"SICKLE CELL DISEASE"

Presented by:

Dr. James W. Pitts, Jr., Junior Assistant Resident in Medicine

Discussed by:

Dr. Sheldon Amsel, Assistant Professor of Medicine, Division of Hematology — UMSM

"BRONCHOGENIC CARCINOMA"

Presented by:

Dr. Russell H. Kramer, Intern in Medicine

Discussed by:

Dr. Peter H. Wiernik, Associate Professor of Medicine, Head, Department of Medicine of the Baltimore Cancer Research Center — UMSM

February 18

"OPHTHALMIC MANIFESTATIONS OF GRAVES DISEASE"

Presented by:

Dr. Louis N. Randall, Intern in Medicine

Discussed by:

Dr. John G. Wiswell, Professor of Medicine — UMSM

"HEREDITARY NEPHRITIS"

Presented by:

Dr. Frederick J. Sutton, Junior Assistant Resident in Medicine

Discussed by:

Dr. John H. Sadler, Associate Professor of Medicine, Head, Division of Nephrology — UMSM

February 25

"MUCORMYCOSIS"

Presented by:

Dr. Mark Jacobs, Junior Assistant Resident in Medicine

Pathologic Correlation:

Dr. Wolfgang J. Mergner, Associate Professor

of Pathology, Head, Autopsy Services — UMSM

Clinical Discussion:

Dr. Frank A. Calia, Associate Professor of Medicine, Head, Division of Clinical Infectious Diseases — UMSM

Chief, Infectious Diseases — Baltimore V.A. Hospital

"SUDDEN UNEXPECTED DEATH"

Dr. Irvin M. Sopher, Clinical Associate Professor of Pathology, Chief Medical Examiners Office — UMSM

March 4

"GAUCHER'S DISEASE"

Presented by:

Dr. Kenneth S. Lewis, Intern in Medicine

Discussed by:

Dr. Stephen R. Max, Associate Professor of Neurology — UMSM

"ATROMID-S AND NIACIN IN CORONARY HEART DISEASE: RESULTS OF THE CORONARY DRUG PROJECT"

Discussed by:

Dr. Christian R. Klimt, Professor and Director, Division of Clinical Investigation, Social and Preventive Medicine — UMSM

March 11

PHI DELTA EPSILON LECTURE

"DIABETIC KETOACIDOSIS AND NON KETO-TIC COMA"

Discussed by:

Dr. Norton Spritz, Professor of Medicine, New York University School of Medicine, Chief, Medical Service, New York Veterans Administration Hospital

March 18

"SPECTRUM OF THE BILLOWING VALVE"

Presented by:

Dr. William A. Valente, Intern in Medicine

Discussed by:

Dr. James A. Ronan, Co-Director of Cardiology, Washington Adventist Hospital, Clinical Associate Professor of Medicine, Georgetown University School of Medicine, Washington, D.C.

"BUDD CHIARI SYNDROME"

Presented by:

Dr. Alfred J. Saah, Junior Assistant Resident in Medicine

Pathologic Correlation:

Dr. Wolfgang J. Mergner, Associate Professor and Head, Autopsy Division Department of Pathology — UMSM

Clinical Discussion:

Dr. Richard E. Sampliner, Assistant Professor of Medicine, Division of Gastroenterology — UMSM

March 25

"ATYPICAL PRESENTATIONS OF MULTIPLE MYELOMA"

Presented by:

Dr. George A. Moran, Intern in Medicine

Discussed by:

Dr. Rouben M. Jiji, Associate Professor of Medicine, Division of Hematology — UMSM

"CHRONIC ACTIVE HEPATITIS"

Presented by:

Dr. Charles Greg Elliott, Junior Assistant Resident in Medicine

Disussed by:

Dr. Frank L. Iber, Professor of Medicine, Head, Division of Gastroenterology — UMSM
Baltimore V.A. Hospital

April 1

"MYOSITIS OSSIFICANS"

Discussed by:

Dr. T. Hugh Morgan, Professor and Head Department of Orthopaedic Surgery — UMSM

"PYOGENIC ARTHRITIS"

Presented by:

Dr. John Misiti, Junior Assistant Resident in Medicine

Discussed by:

Dr. Harold C. Standiford, Assistant Professor of Medicine, Division of Infectious Diseases — UMSM

Associate Director of Infectious Diseases — BVAH

April 8

"HYPOPARATHYROIDISM"

Presented by:

Dr. Jack J. Applefeld, Assistant Resident in Medicine

Discussed by:

Dr. Thomas B. Connor, Professor of Medicine, Director, Division of Endocrinology and Metabolism, Clinical Study Center — UMSM

"CLINICAL SYNDROME OF CERVICAL SPONDYLOTIC MYELOPATHY"

Presented by:

Dr. Wolfe J. Blotzer, Assistant Resident in Medicine

Discussed by:

Dr. George D. Yannakakis, Clinical Associate Professor, Department of Neurology — UMSM

Chief of Neurology Section BVAH

April 15

THE CHARLES GETZ, M.D. MEMORIAL LECTURES

"PATHOGENESIS AND CURRENT CONCEPTS OF TREATMENT AND CONTROL OF TUBERCULOSIS"

Discussed by:

Dr. Sol Katz, Professor of Medicine, Georgetown University School of Medicine Washington, D.C.

April 22

"RENA TUBERCULOSIS"

Presented by:

Dr. Marc A. Mugmon, Junior Assistant Resident in Medicine

Discussed by:

Dr. Jay S. Goodman, Associate Professor of Medicine, University of Maryland School of Medicine, Assistant Chief of Medicine, Mercy Hospital

"MALARIA"

Presented by:

Dr. Melvin L. Clayton, Junior Assistant Resident in Medicine

Discussed by:

Dr. Richard B. Hornick, Professor of Medicine, Head, Division of Infectious Disease — UMSM

April 29

"BODY LANGUAGE IN THE PRACTICE OF MEDICINE"

Discussed by:

Dr. Gordon H. Deckert, Professor and Chairman, Department of Psychiatry, University of Oklahoma School of Medicine

May 6

"CARCINOMA OF THE THYROID"

Presented by:

Dr. Jeffrey S. Sollins, Intern in Medicine

Discussed by:
Dr. Harry C. Hull, Professor of Surgery — UMSM
Dr. John G. Wiswell, Professor of Medicine — UMSM

"PROTEAN MANIFESTATIONS OF EARLY SYPHILIS"

Presented by:
Dr. Louis N. Randall, Intern in Medicine
Discussed by:
Dr. Harry M. Robinson, Jr., Professor of Medicine, Head, Division of Dermatology — UMSM

May 13

"SYSTEMIC LUPUS ERYTHEMATOSUS"

Presented by:
Dr. Harold J. Tucker, Junior Assistant Resident in Medicine
Discussed by:
Dr. Jean M. Jackson, Assistant Professor of Medicine, Head, Division of Rheumatology — UMSM

"HYPOTHERMIA"

Presented by:
Dr. David A. VanEcho, Junior Assistant Resident in Medicine
Discussed by:
Dr. Sheldon E. Greisman, Professor of Medicine, Division of Infectious Diseases — UMSM

May 20

"GOODPASTURE'S SYNDROME"

Presented by:
Dr. John A. Lang, Intern in Medicine
Pathologic Correlation:
Dr. Moon L. Shin, Assistant Professor of Pathology — UMSM
Discussed by:
Dr. Andrew Nowakowski, Assistant Professor of Medicine — UMSM

"PRINZMETAL'S ANGINA"

Presented by:
Dr. James M. Raver, Intern in Medicine
Discussed by:
Dr. Stephen M. Austin, Assistant Professor of Medicine, Division of Cardiology — UMSM

May 27

"PNEUMOCYSTIS CARINII"

Presented by:
Kathryn Peroutka, Senior Medical Student, Graduation Class of June, 1975 — UMSM

Discussed by:
Dr. Stephen C. Schimpff, Assistant Professor of Medicine, Baltimore Cancer Research Center — UMSM

"ROCKY MOUNTAIN SPOTTED FEVER"

Discussed by:
Dr. Theodore E. Woodward, Professor and Head, Department of Medicine — UMSM

RESEARCH

Research is conducted under the auspices of the various subspecialty Divisions of Medicine and within the framework of the general department. Those research activities and list of publications not given in this section may be found in the various subspecialty divisions.

During the past year, Dr. Greisman and his associates have continued studies on the mechanisms by which resistance is acquired to the toxic activities of gram-negative bacterial endotoxins. Specifically, the effect of exchange transfusions following the intravenous administration of lethal doses of endotoxin into experimental animal models has been evaluated. The inability to reduce lethality despite rapid removal of the toxin from the circulation has been documented and the concept advanced that endotoxin tolerance cannot be based simply upon enhanced clearance of toxin from the blood by the reticuloendothelial system. In addition, studies have been completed detailing the effect of splenectomy upon the responses of man and of experimental animals to bacterial endotoxins. The importance of the spleen for antibody formation and for the development of tolerance to endotoxin has been documented. Finally, studies on the effectiveness of heparin in experimental heat stroke have been completed. The ineffectiveness of early heparinization on heat stroke mortality was confirmed and contrasts with the highly protective effect of ice baths.

Publications:

1. S.E. Greisman, and B. DuBuy, Mechanisms of endotoxin tolerance IX. Effect of exchange transfusion. *Proc. Soc. Exp. Biol. and Med.* 148:675, 1975.
2. S.E. Greisman, E.J. Young, J.B. Workman, R.M. Ollodart, and R.B. Hornick, Mechanisms of endotoxin tolerance: The role of the spleen. *J. Clin. Invest. In Press.*

STAFF HONORS AND ACTIVITIES

Faculty Personnel Notes

1. **Dr. Charles B. Payne, Assistant Professor of Medicine**

Doctor Payne, Assistant Professor of Medicine and academician in the field of pulmonary diseases, resigned on August 30, 1975, to undertake the Headship of the Division of Pulmonary Diseases at the Cleveland Veterans Administration under the program of Case Western Reserve School of Medicine. Doctor Payne was recruited originally to head the Department of Medicine at the Provident Hospital in Baltimore and transferred to the Department of Medicine at the University of Maryland School of Medicine on a full-time basis in 1973. In addition to his teaching of medicine to students and house officers, Doctor Payne organized and conducted excellent postgraduate programs in Inhalation Therapy and Respiratory Physiology. During these years, Doctor Payne made many friends. His contribution is appreciated.

2. **Dr. Jean M. Jackson, Assistant Professor of Medicine and Head of the Division of Rheumatology**

Doctor Jackson resigned her position on June 30, 1975, to rejoin the staff of the Robert Bent Brigham, Boston, on the service of Dr. Frank Austen. Doctor Jackson taught the principles of medicine and rheumatology and served as a stimulus for those working on her service.

Dr. Mary Betty Stevens was appointed as Director of the Division of Rheumatology with the rank of Associate Professor of Medicine in July, 1975. Doctor Stevens, Head of the Division of Connective Tissue Diseases at the Good Samaritan Hospital and the Johns Hopkins University will direct an over-all Center Program in Rheumatology stressing teaching and medical practice in this important field. She is an outstanding person and one well-equipped to direct this broad activity. Dr. Thomas M. Zizic, newly appointed as Assistant Professor of Medicine will assist Doctor Stevens in the development of this collaborative educational, practice, and research program.

3. **Dr. Ephraim T. Lisansky, Professor of Medicine and Master of the American College of Physicians**

Doctor Lisansky received the William C. Menninger Award of the American College of Physicians in April, 1974, for his outstanding work in Internal Medicine and Psychiatry through many years.

4. **Dr. Edward F. Cotter, Associate Professor of Medicine**

Dr. Cotter, who served as a most effective teacher of medicine and staff member for many years, and Head of the Division of Physical Diagnosis, was granted Emeritus status.

5. **Dr. Louis A. M. Krause, Professor of Clinical Medicine**

Doctor Krause, who had been Professor of Clinical Medicine since 1964, died on Sunday, July 27, 1975, at the St. Joseph's Hospital. Dr. Krause was one of Baltimore's leading clinicians who was recognized as an outstanding teacher in Baltimore and throughout the United States. The Department of Medicine held a testimonial dinner in his honor on July 6, 1966, at the time of his retirement when he was awarded a Captain's chair and an inscribed plate.

Louis A. M. Krause, M.D., F.A.C.P.

Classic Clinical Teacher

Able Physician and a Life Long Student

From his Colleagues at the

University of Maryland Hospital.

6. **Dr. Malcolm Cooper, Head of the Division of Nuclear Medicine**

Doctor Cooper, Head of the Division of Nuclear Medicine since 1972, has reorganized and expanded this unit into an effective teaching, research and diagnostic service unit. Newly appointed members of the division are Dr. Michael D. Loberg, Assistant Professor, Dr. Edward U. Buddemeyer, Associate Professor of Medicine, Dr. James A. Quinlan, Assistant Professor of Medicine, and Miss Elizabeth Harvey, Assistant in Medicine.

7. **Dr. Leonard Scherlis, Head of the Division of Cardiology**

Doctor Scherlis has strengthened the teaching and research activities of the division through the recruitment of Dr. Stephen Austin, Assistant Professor of Medicine, Dr. Kenneth Gimbel, Assistant Professor of Medicine and Dr. Mark Applefeld, Assistant Professor of Medicine.

8. **Dr. John H. Sadler, Associate Professor of Medicine and Head of the Division of Nephrology**

The Division of Nephrology, under the leadership of Doctor Sadler, has strengthened its educational and research program and broadened its competence in renal dialysis and organ transplantation through the recruitment of Dr. Emilio Ramos in 1972, Dr. Andrew Nowakowski in 1973, and Dr. John Little in 1974.

During 1974-75, Doctor Woodward was elected to membership of the Board of Regents of the American College of Physicians, and appointed as a member of the Advisory Panel of the U.S. Army Medical Research and Development Command.

DEPARTMENTAL STAFF MEETINGS

DEPARTMENT OF MEDICINE

UNIVERSITY OF MARYLAND HOSPITAL

DATE	NO. ATTENDING	TOPIC DISCUSSED
September 10, 1974	35	Review of Departmental Conferences for the year including all specialty areas
September 17, 1974	34	Discussion of the teaching program in the course, Introduction to Medicine, comparing medical students in freshmen and sophomore years
September 24, 1974	34	Protocol and discussion of the Clinical Pharmacy Program
October 1, 1974	32	Cost Center Analysis Discussion and Review
October 8, 1974	35	Dr. William C. Roberts from the National Heart and Lung Institute of NIH discussed in further detail the "Pathogenesis of Ischemic Heart Disease"
October 15, 1974	33	Discussion of Autopsy Services available to house staff and faculty for teaching purposes
October 22, 1974	34	Family Practice Residency Program
October 29, 1974	30	Discussion of the Medical House Staff Program for 1975-76
November 5, 1974	34	Discussion of the Primary Care Clinic and the role of nurse practitioners
November 12, 1974	33	Further discussion of the Cost Center
November 19, 1974	36	THE JULIUS FRIEDENWALD MEMORIAL LECTURE AND LUNCHEON Dr. Hans Popper, distinguished Visiting Professor
November 26, 1974	36	Dr. W. Proctor Harvey, Visiting Professor of Medicine, spoke on Auscultatory Roulette
December 3, 1974	32	The Role of the Medical Admitting Officer
December 10, 1974	30	Medical Bed Priorities
December 17, 1974	32	Visiting Professor Dr. Richard G. Farmer, Cleveland Clinic Foundation, spoke on new advances in the field of gastroenterology
January 7, 1975	34	Preparation for the Boards in Internal Medicine/ Subspecialty Boards included
January 14, 1975	37	THE ALICE BAND MEMORIAL LECTURE AND LUNCHEON Dr. C. Lockard Conley from Johns Hopkin Hospital spoke on recent hematologic advances
January 21, 1975	32	Discussion of the opening of a renal ward
January 28, 1975	30	Discussion stressing the need for attending physicians to discharge their responsibilities while on service; i.e., teaching, keeping abreast of medical developments in all patients on their service; being on-call, etc.
February 4, 1975	35	THE MEDICAL HOUSE OFFICERS LECTURE AND LUNCHEON Discussion of medical house staff of today from yesteryear

ORGANIZATION AND BEGINNINGS OF RESIDENCY PROGRAM IN GENERAL PRACTICE (TRAINING IN PRIMARY CARE)

In the mid-1950's, training programs in Medicine stressed the subspecialties in addition to a firm indoctrination in general medicine. At that time, there were no accepted programs for training in general practice in Maryland; because of the interest of Maryland graduates for training in general practice, as well as our desire to attract and retain highly competent physicians in Baltimore and Maryland, the Department organized and developed a residency program in general practice.

ORGANIZATIONAL CONCEPTS

It was viewed as essential that the early training in medical school should be undifferentiated with graduates having acquired a full experience in the fundamentals of medicine (basic sciences, pathophysiology) and in clinical skills, including proficiency in history-taking and performance of physical examinations.

A rotating internship then available provided 4-6 months in Medicine, about two months in Pediatrics, two months in the Emergency Room, and the remainder of the year in other clinical disciplines. Later, a mixed internship was adopted which provided approximately six months Medicine, four months Pediatrics, and two months of Emergency Room experience. Selected students were permitted time in Surgery and other clinical fields on request.

A second year of training (the first year of general practice residency) was primarily a medical year with considerable stress upon primary care. Six months of this year were served in the Medical

Outpatient Department, primarily in the General Medicine Clinic but also in Subspecialty Clinics (Diabetes, Gastroenterology, Cardiology, Pulmonary, Rheumatology, etc.) and in the following clinics other than the regular subspecialty clinics in Medicine, i.e., Ophthalmology, Gynecology-Obstetrics, and Dermatology. These provided additional orientation for general practice and were supplemental to the internship experience. During this six month training, the general practice resident visited clinic patients in their homes when indicated. These activities were reported to the full-time Head of the Medical Clinic and his staff. A model general practice office was available in the old medical out-patient clinic on the fourth floor with office equipment provided, without charge, by a local supply firm.

During the second six months of the second year of training the general practice resident was assigned in the hospital to the medical service in full collaboration with other teaching medical residents. The general practice resident continued to follow in the Outpatient Department, patients who he had cared for during his earlier ambulatory experience as well as his inpatients who were discharged to the Outpatient Department for follow-up.

The third year of the general practice residency was designed for the individual and depended upon the physician's intent either to practice alone or with a group. More training in either Pediatrics or Psychiatry was given if the candidate was to serve this additional function in the group. Similarly, more training in Gynecology-Obstetrics, Minor Surgery, Anesthesiology, Orthopedics, etc. was offered to support practice plans. Most of the third year house officers served for 2 or 3 months in affiliated hospitals in Maryland, e.g., Peninsula General Hospital in Salisbury, Memorial Hospital in Hagerstown, Maryland General Hospital in Baltimore, Hanover General Hospital, where they often chose to settle.

Most candidates participated in the full three-year program although some entered practice after two years. Other residents joined our program after internship elsewhere. The largest number of residents in general practice for any one year was four, the average was two.

The first and second years were accepted for credit by the American Board of Internal Medicine.



During these early years, the Maryland Academy of General Practice made financial awards to some trainees. This group was of considerable assistance and some of its members were helpful in planning. Also, the American College of Physicians through the Mead Johnson Company made awards of \$1,000 each year for support of certain candidates.

PERSONNEL AND FISCAL

With the obvious trend and increased need for more practicing physicians, the Department of Medicine recruited a full-time head for its Division of General Practice (which later became the Division of Family Practice in the Department of Medicine).

Doctor William Stewart of Westminster was recruited and joined the faculty on a half-time basis in 1967 as Assistant Professor of Medicine and Preventive Medicine, supported by funds available to the Department of Medicine. He was promoted to the rank of Associate Professor the following year. The Departments of Preventive Medicine and Pediatrics supported the training program. Dr. Stewart and his small group occupied the facilities of the Medical Care Clinic on the second floor of the University of Maryland Hospital. A screening clinic for patients functioned under him with participation by residents in Medicine assigned from the Medical Outpatient Clinic.

In 1966, the Department of Medicine requested a full-time senior faculty position in Family Medicine and four general practice residents in its Asking Budget. The Faculty Position, several house officerships and a clerical item were awarded to the Department of Medicine in the Legislative Budget of fiscal year 1968.

Based on the foundation laid by the Department of Medicine and under sponsorship of Dr. Stewart from 1967 to 1971, the reorganized Division gained local and national recognition as a training site in Family Medicine. The Departments of Pediatrics and Preventive Medicine provided help and guidance. Dr. Stewart organized a student Family Practice Club and arranged for rotation of house officers for part of their training in other hospitals. He departed in 1971 to head another program and Dr. William T. Layman served as Interim Director until January 1972 when Dr. Edward J. Kowalewski was appointed as Head of the autonomous Division of Family Medicine. The Department of Medicine has committed itself to assist the new division in its educational and practice objectives.

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Chief, Medical Service

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Professor of Medicine
Chief, Gastroenterology Section

William S. Spicer, M.D.
Professor of Medicine

Frank M. Calia, M.D.
Associate Professor of Medicine
Chief, Infectious Diseases Section

Bruce P. Hamilton, M.D.
Associate Professor of Medicine
Chief, Endocrinology and Metabolism

Robert A. Kerr, Pharm. D.
Director and Associate Professor
Division of Clinical Pharmacy

Herbert A. Kushner, M.D.
Associate Professor of Medicine
Associate Chief of Staff for Ambulatory Service

Edward Rusche, M.D.
Associate Professor of Medicine
Chief, Pulmonary Function Laboratory

Harold C. Standiford, M.D.
Associate Professor of Medicine
Infectious Diseases Section

George D. Yannakakis, M.D.
Associate Professor of Medicine
Clinical Associate Professor of Neurology
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Perry B. Austin, M.D.
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Richard Baum, M.D.
Assistant Professor of Medicine
Gastroenterology Section

Nicolas Buendia, M.D.
Assistant Professor of Medicine
Neurology Section

Ethelred Carter, M.D.
Assistant Professor of Medicine
Gastroenterology Section

Elaine Choi, M.D.
Assistant Professor of Medicine
Clinical Director, Alcohol Detoxification Unit

Charles E. DeFelice, M.D.
Assistant Professor of Medicine
Cardiology Section

Michael Fisher, M.D.
Assistant Professor of Medicine
Cardiology Section

John McConville, M.D.
Assistant Professor of Medicine
Infectious Disease Section

Sohrab Mobarhan, M.D.
Assistant Professor of Medicine
Gastroenterology Section

Gary D. Plotnick, M.D.
Assistant Professor of Medicine
Cardiology Section

Robert Russell, M.D.
Assistant Professor of Medicine
Clinical Investigator, Gastroenterology Section

Richard E. Sampliner, M.D.
Assistant Professor of Medicine
Gastroenterology Section

Barry J. Schlossberg, M.D.
Assistant Professor of Medicine
Associate Chief of Staff for Education

Irving D. Wolfe, M.D.
Assistant Professor of Medicine,
Dermatology Section

INTRODUCTION

The Program in Internal Medicine at the Baltimore VA Hospital underwent major organizational change in the late 1960's under the leadership of Dr. Woodward. Acting on recommendations by the Dean's Committee that a full service acute care hospital be identified for the Baltimore metropolitan area, the VA Central Office established the Baltimore VA Hospital as the acute GM&S hospital for this region. Professional supervision of the Medical Service at this hospital was assigned to the University of Maryland School of Medicine. Dr. John Wiswell was selected as Acting Chief of Medical Service and held this position for a period of one year. In 1970, Dr. Morton I. Rapoport was appointed Chief of the Medical Service and continues to hold this position. By virtue of recognition of the potential role of the VA Hospital in the educational and investigative programs of the University of Maryland, Dr. Woodward was instrumental in helping to identify and attract an outstanding group of young clinicians to join the VA based faculty. Where feasible, complete integration of VA faculty and University faculty within specialty divisions was encouraged.

The growth of the VA Medical Service has been reflected in several manners. More than 30 full or part-time faculty members are based at the VA Hospital. Funding for the service including salary, administrative and education budget exceeds \$2,000,000/year and amounts to approximately 15% of the hospital's operating funds. This figure represents a 10 fold increase in the budget over four years. However, number of faculty or budget allocations cannot in themselves reflect on the quality or magnitude of service provided by a program.

EDUCATION

Current yearly figures indicated that approximately 40% of the second year class is assigned to the Baltimore VA Hospital for Physical Diagnosis experience. At least 50% of the third year class receives its medical clerkship at the VA Hospital. Virtually, 100% of the fourth year class elects at

least one month of primary care or subspecialty experience at the VA and the average members in excess of two months of elective experience at the VA.

The graduate medical program is completely integrated during the first three years such that each trainee is assigned to VA based services for approximately 50% of his clinical experience. Graduate training in most subspecialties is similarly integrated, although several specialties maintain separate training programs.

Collaborative educational programs with the School of Pharmacy and School of Nursing have been implemented as part of a new thrust in ambulatory medicine. These programs reflect the strong commitment by the Medical Service to development of innovative and high quality medical care systems as part of an overall emphasis in primary care education. Programs designed to educate and utilize clinical pharmacists and nurse practitioners as primary care providers are being evaluated at the VA Hospital under supervision of Dr. Barry Schlossberg, Dr. Herbert Kushner, and Dr. William Spicer. Integration of these programs with traditional medical educational programs has served to underscore the effort of our faculty and our school to develop innovative and more effective methods of health care delivery.

RESEARCH

Clinical investigation is a vital facet of the VA program. Under the leadership of Dr. Frank Calia, Associate Chief of Staff for Research, a progressive and relevant research program has evolved. Large scale laboratory renovation, significant budgetary growth, and national recognition for this program has resulted. Over a period of four years, the institutional research budget has increased from \$40,000 to about \$500,000 annually. Four faculty members serve on editorial boards of national journals. Several faculty hold elective office in national research societies, and membership in NIH and VA study sections and advisory groups.

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DIVISION OF CARDIOLOGY

FACULTY

- Leonard Scherlis, M.D.
Professor of Medicine
Head, Division of Cardiology
- Robert T. Singleton, M.D.
Associate Professor of Medicine
Co-Director, Cardiovascular Laboratory
- Yu-Chen Lee, M.D.
Associate Professor of Medicine
Director, Graphics Laboratory
- Stephen M. Austin, M.D.
Assistant Professor of Medicine
Asst. Director Cardiovascular Laboratory
- Kenneth S. Gimbel, M.D.
Assistant Professor of Medicine
Director, Coronary Care Unit
- Miriam L. Cohen, M.D.
Assistant Professor of Medicine
Director, Adult Cardiac Clinic
- Jerry Salan, M.D.
Assistant Professor of Medicine
- Kyle Swisher, Jr., M.D.
Assistant Professor of Medicine
- Sidney Scherlis, M.D.
Assistant Professor of Medicine
- Donald H. Dembo, M.D.
Assistant Professor of Medicine
- Albert M. Antlitz, M.D.
Assistant Professor of Medicine
- Luis F. Gonzalez, M.D.
Instructor in Medicine
- David Oursler, M.D.
Instructor in Medicine
- Chris Papadopoulos, M.D.
Instructor in Medicine
- Elijah Saunders, M.D.
Instructor in Medicine
- John Messina, M.D.
Instructor in Medicine
- Louis E. Grenzer, M.D.
Instructor in Medicine
- James Pantano, M.D.
Fellow in Cardiology
- Benedict Termini, M.D.
Fellow in Cardiology
- Marc Colmer, M.D.
Fellow in Cardiology
- Chrysologue Gakuba, M.D.
Fellow in Cardiology
- Kiourmarce Yazdani, M.D.
Fellow in Cardiology

EDUCATION

The Division of Cardiology is actively involved in teaching in all four years of the Medical School, House Staff training, Fellowship training, and Post-Graduate Work.

1. Undergraduate Program: Several lectures were given by members of the Division of Cardiology to the freshman class under the course heading "Freshman Correlative Medicine". This course serves as an introduction to the pathophysiology features of cardiovascular disease. In the sophomore year, Dr. Leonard Scherlis serves as Chairman of the Subject Systems Committee on Cardiovascular Disease. This system occupies two weeks of the second semester in the second year. It is a correlated program providing the student with the necessary basic science background prior to his clinical experience, including learning how to obtain and evaluate data from the history, physical examination, and laboratory. Attempts are made to present this as a correlated experience with members of the Division participating with members of the Departments of Pharmacology and Experimental Therapeutics, Pathology, Pediatrics, and Surgery. Several inter-departmental conferences are held during this time. In addition, cardiac auscultation is taught utilizing the PhonoCardioSimulator, a device which permits the duplication of various murmurs and heart sounds with variation in frequency, duration, and timing. Electronic stethophones are employed by the students. Patients also are presented utilizing this apparatus which permits the student to better correlate auscultatory phenomena and cardiovascular examination.

Several members of the Division served as Instructors in Physical Diagnosis for freshman and sophomore students.

During the assignment to the hospital wards, the junior students are in contact with the consultants and fellows in Cardiology and two members of the Division serve as Attending Physicians. Availability of cardiac catheterization data and other hemodynamic evaluations on the charts considerably enhances this program. The Coronary Care Unit is actively utilized for teaching students.

During the elective period of the senior year, several students participated in the Division of Cardiology activities for a period of one month. During this time, they attend conferences, work in the Adult Cardiac Clinic, attend the Coronary Care Unit rounds, and participate in graphic studies. Additional students participate in the program in Cardiology at Mercy Hospital, Maryland General Hospital, and the Loch Raven VA Hospital. A "self-instruction room" is increasingly used by students, house officers, and fellows and includes projectors for slides, tape cassettes and TV cine tapes for cardiovascular learning.

2. **House Staff Training:** Senior Assistant Residents rotate through the Division of Cardiology on an elective basis. During the rotation, the residents participate actively in the cardiology program under the close supervision of members of the Division. This includes interpretation of electrocardiograms and other graphic studies, working in the Adult Cardiac Clinic, participating in conferences and having the opportunity to polish up on diagnostic and therapeutic skills. Members of the Division present conferences to the House Staff Conference and at Medical Grand Rounds.

3. **Fellowship Training:** During the past year, there have been five fellows in the Division of Cardiology, two of whom have been supported by the Heart Association of Maryland. Their rotation includes the Graphics Laboratory, Cardiac Catheterization, Cardiac Consultation, Cardiac Clinic, and Coronary Care Unit where they become familiar with diagnostic and investigative techniques including electrocardiography, spatial vectrocardiography, phonocardiography, fluoroscopy, right and left heart catheterizations, cine angiocardiography, echocardiography, etc. They participate in the pre-operative evaluation of patients for cardiac surgery and in their operative and post-operative management. Formal conferences held on a regular basis include interdepartmental conference on Cardiovascular Surgery, review of Cardiac Catheterization and Graphics Data, Journal Club, Cardiac Pathology Conference, and Weekly conference on Cardiovascular Subjects.

4. **Post-Graduate Work:** The Division of Cardiology has been actively involved with the In-Service Training Program of the University of Maryland School of Medicine since its inception. During the past years, four physicians who were in practice spent a month in the Division of Cardiology concentrating in an area of their own particular interest and usually included training in the Coronary Care Unit. This experience permitted them to exchange ideas and discuss specific problems with members of the Division. Members of the Division participated in post-graduate teaching at a course held in Annapolis by the University of Maryland School of Medicine and also in conferences held in other hospitals through the area.

RESEARCH

1. **Evaluation of Spatial Vectorcardiography in Heart Disease:** This technique involves the recording of electromotive forces of the heart by the display of the representation of electrical forces in three planes. It is currently under increased investigation in coronary heart by correlation with

coronary cine angiography, routine electrocardiography, and ventriculography. Preliminary results indicate a higher degree of sensitivity and specificity for vectrocardiography of a routine scalar electrocardiogram.

2. **Beta Blocking Agents and Myocardial Function:** The effect of sudden withdrawal of propranolol on systolic time intervals and catecholamine excretion in man is being determined. There has been increasing concern for the problems attendant with the sudden discontinuance of propranolol therapy. Partial support is provided by Ayerst and Co., \$6,500 and the Heart Association of Maryland, \$10,000, Fellowship.

3. **Myocardial Scanning in Patients Undergoing Coronary Bypass Surgery:** Potassium 43 myocardial scanning as a predictor of improvement in patients undergoing surgery for coronary artery disease has been investigated in a combined program with the Division of Nuclear Medicine. These studies will be continued as well as other aspects of the role of nuclear medicine in cardiovascular disease. Heart Association of Maryland, \$9,500. Fellowship Support.

4. **Echocardiography:** Echocardiography provides a valuable tool for the evaluation of patients with many types of cardiovascular disease. Study of the movements of portions of the ventricular wall may provide a means for analyzing pre-excitation syndromes. A preliminary report of this technique in evaluation of the electrical-mechanical features of the Wolff-Parkinson-White Syndrome has been submitted for publication.

5. **Psychological Features of Coronary Heart Disease:** The effects of various stages of sleep on the incidence of cardiac arrhythmias is being studied in association with the Department of Psychiatry by Dr. James Lynch and Dr. Dave Paskevitz utilizing continuous EEG and ECG monitoring. Other emotional aspects of arrhythmias are also being investigated. Partial support for these studies is derived through the use of equipment made available in the Coronary Care Unit and Cardiac Catheterization Laboratory. The Leidy Foundation has made a Grant of \$12,000 and the Woman's Auxiliary of \$4,075 for equipment for patient care.

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2. J. Pantano, Y.C. Lee. The effect of sudden withdrawal of propranolol on myocardial contractility.
3. J. Pantano, R.T. Singleton. Traumatic ventricular septal defect.
4. K.S. Gimbel. Echocardiographic studies in Wolf-Parkinson-White Syndrome.

SERVICE

The Division of Cardiology is responsible for cardiovascular laboratory procedures including the recording and interpretation of electrocardiograms, vectorcardiograms, phonocardiograms, echocardiograms, holter monitoring (12-24 hr. electrocardiographic recordings), graded exercise tests, and systolic time intervals.

In the following table is summarized the percentage increase of each of the services performed by the Graphics Laboratory during 1974-75 compared with 1973-74.

Despite the marked increase in the number of electrocardiograms over the past several years, these continue to be interpreted and every effort is made to have them placed on the chart on the same day in which the request is received and this mission is accomplished in well over 90% of all instances. The Exercise Stress Laboratory utilized a treadmill with appropriate monitoring provided including rate meter, ST segment analyzer, and ST slope determinations. Echocardiography has proved to be an increasingly valuable tool for the evaluation of patients with many different types of heart disease. The increased utilization of these many tests reflects the increased need for evaluating patients with proved or suspected heart disease in order to determine the degree of disability and the potential benefits of possible cardiovascular surgery.

Cardiac Catheterization Laboratory

The Cardiovascular Laboratory operates in conjunction with the Department of Radiology in maintaining an active diagnostic program. Selective cine angiocardiology is performed during cardiac catheterization in nearly all of the patients who undergo study. The provision of a television screen makes this unit of greater use both as a diagnostic and teaching aid. The employment of cine tape makes available the results of the study within seconds and has markedly reduced the need for repeat catheterization because of inadequate data. During the past year, the studies performed in the Cardiac Catheterization Laboratory have continued to reflect the increased interest in evaluating patients with coronary heart disease.

Dr. Robert T. Singleton of the Division of Cardiology and Dr. Prasarn Nilprabhassorn of the Department of Radiology serve as Co-Directors of the Laboratory with the aid of Dr. Stephen Austin who is Assistant Director.

Adult Cardiac Clinic

The Outpatient Department Adult Cardiac Clinic

GRAPHICS LABORATORY

Hospital Diagnostic Services	Percent Increase 1974-1975 Over 1973-1974
Electrocardiograms	8%
Continuous Tapes	101%
Graded Exercise Tests	94%
Phonocardiograms	15%
Vectorcardiograms	24%
Echocardiograms	99%

meets on Monday and Friday afternoons under the direction of Miriam Cohen, M.D. During the past year there were 1,683 patient visits, an increase of 20% over the previous year when there were 1,504 patient visits. Attempts are made to give complete consultative service on one visit, including the recording and evaluation of electrocardiograms. This Clinic is actively used for both patient care and teaching. In addition, a Pacemaker Laboratory is part of the facilities of this Clinic.

Coronary Care Unit

The new Coronary Care Unit in the North Hospital opened in 1973 with a total of seven beds. The Coronary Care Unit is the hub for acute cardiac care. In the Emergency Room two beds are used for acute cardiovascular emergencies. They are in an observation area in which monitors are directly linked by hard wire to the Coronary Care Unit so that the staff in the Unit provides on-going consultative and monitoring service. In addition, there are two rooms, each with two monitored beds, which are directly linked by hard wire to the Coronary Care Unit. These constitute a "step-down" area. In addition, the patients in this room may be ambulatory with their electrocardiograms being sent by telemetry to the wall monitors in the room and thence by hard wire to the Coronary Care Unit. This allows evaluation of ambulatory cardiac patients. There is a treatment and procedure room in the Coronary Care Unit for cardioversion, electrophysiologic studies, insertion of pacemakers, or other procedures necessitating the use of a portable image intensifier. The Fellows in Cardiology are actively involved in patient care and evaluation in this area. During the past year, there were 618 admissions to the Coronary Care Unit. Dr. Kenneth Gimbel is Director of the Coronary Care Unit and conducts daily rounds in the Unit. He has held numerous teaching seminars for the staff and has given twelve lectures to the nursing staff of the Coronary Care Unit on heart disease.

COMMUNITY SERVICE

Members of the Division of Cardiology have been active within the community in programs which concern cardiovascular disease. They are active in many phases of activity of the American Heart Association and the Heart Association of Maryland. The nationwide program in Cardiopulmonary Resuscitation has been closely involved with the University of Maryland School of Medicine. The various manuals which are used by the American Heart Association and have been recommended by the National Research Council, National Academy of Science have included partici-

pation by members of the Division.

Dr. Leonard Scherlis serves as Chairman of the Advisory and Review Heart Committee of the Maryland Regional Medical Program and is also a member of the Regional Advisory Group of the Maryland Regional Medical Program. He is a member of the Board of Directors of the Heart Association of Maryland and of the Baltimore Metropolitan Division. He is Chairman of the Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care of the Heart Association of Maryland. He is also a member of the Program Committee of the Heart Association of Maryland. Dr. Leonard Scherlis and Dr. Donald Dembo were members of the American Heart Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care and participated actively in its nationwide program. Dr. Leonard Scherlis is a member of the Advisory Group and is Chairman of the Coronary Study Group of the Inter-Society Commission for Heart Disease Resources. He served as a member of the National Regional Medical Program Committee of the United States Regional Medical Program. He is a Consultant in Cardiology at the United States Public Health Service Hospital in Baltimore, Veteran's Administration Hospital, Fort Howard; Springfield and Spring Grove State Hospitals. Dr. Yu-Chen Lee is Director of the Frederick County Cardiac Clinic and Dr. Stephen Austin is cardiac consultant to this clinic. Dr. R.T. Singleton is Consultant in Cardiology to the Calvert County Hospital. He is a member of the Board of Directors of the Maryland Medical Alumni Association and Councilor for Maryland in the Southern Medical Association. He is Chairman of the Council on Research of the Heart Association of Maryland.

Dr. Leonard Scherlis is a member of the Editorial Board of the American Heart Journal and is a Consulting Editor on the Editorial Board of the American Journal of Medicine, Heart and Lung, and American Journal of Cardiology. Dr. Kenneth Gimbel is Consultant in Cardiology to the Veteran's Administration Hospital in Perry Point, Maryland. Dr. Yu-Chen Lee serves as Cardiac Consultant for the Stroke Clinic which is under the auspices of the Department of Neurology. This Clinic meets once weekly and the relationship between stroke and cardiovascular disease continues to furnish an excellent common meeting ground between the Division of Cardiology and the Department of Neurology.

The volunteer and part-time faculty who participate in the activities of the Division of Cardiology play an important role in contributing to the overall program. Miriam L. Cohen, M.D., Director of

the Adult Cardiac Clinic, is also Director of the Electrocardiography Department and Cardiology Teaching Program at the Union Memorial Hospital. She has participated in several of the Cardiology Conferences at the University of Maryland and is responsible for the patient care and teaching program in the Adult Cardiac Clinic. Luis F. Gonzalez, M.D. participates in the activities of the Adult Cardiac Clinic. Chris Papadopoulos, M.D. is Chief of Staff at South Baltimore General Hospital and Director of the Cardiology Program at the South Baltimore General Hospital. He has served as Moderator of the course on "Modern Cardiovascular Concepts" of the Heart Association of Maryland on October 19, 1974 and was Moderator on the course on "Cardiac Emergencies" on May 1, 1975 of the Heart Association of Maryland and the Medical and Chirurgical Faculty of the State of Maryland. He participates in teaching University of Maryland medical students who rotate through the services at the South Baltimore General Hospital. He was elected a Member of the Board of Medical Examiners of the State of Maryland and is a member of the Hypertensive Steering Committee in the State of Maryland. He was elected President of the Heart Association of Maryland for 1974-1975 and is a member of the Board of Directors of the Central Maryland Chapter of the Heart Association. He was honored by receiving the "Special Award of the American Heart Association Maryland Affiliate" in 1974. He has also made several radio and television programs on public education relating to heart disease. Elijah Saunders, M.D., Director of the Cardiovascular Program at the Provident Hospital, has been extremely active in problems related to hypertension. He is Chairman of the High Blood Pressure Program Committee for the Central Maryland Heart Association and is a member of the Council on High Blood Pressure Research of the American Heart Association as well as being a member of its Working Group for Programming for Minority and Low Income Groups and a member of the Review Committee for Poverty Planning and Development Funds. He was recently elected a member of the Board of Directors of the American Heart Association and is a member of its Stroke Sub-Committee. He has been President of the Central Maryland Heart Association. He has presented lectures on hypertension to the National Medical Association, American Red Cross, Provident Comprehensive Medical Health Center, Calvert Memorial Hospital, Morgan State College, Black Biomedical and Technical Association of Cornell University, South Baltimore General Hospital, and Protective Order of the Elks of the World. He has presented several

additional lectures including Black Perspectives in Medicine, Stanford University School of Medicine; Cardiovascular Disease in the Black Community, Manifestations and Impact, Student National Medical Association and has participated in many television and radio programs on various aspects of cardiovascular disease. He is engaged in a Collaborative Study with the Department of Preventive Medicine at the University of Maryland on Hypertension Detection and Treatment and has served as a Project Director for a Hypertensive Patient Education Program. He has contributed a chapter on hypertension to a textbook to be published by McGraw Hill, "Black Related Diseases". Dr. Albert M. Antlitz, Director of the Cardiovascular Program at Mercy Hospital has been active in the Cardiovascular Program at the University of Maryland contributing to its teaching program both at the University and at Mercy Hospital. Senior students serve their elective program at the Maryland General Hospital under the direction of Donald H. Dembo, M.D. who is Director of the Cardiovascular Program at Maryland General Hospital. He has been active in the Cardiopulmonary Resuscitation activities of the American Heart Association and of the Heart Association of Maryland. He has presented lectures on Anatomy, Physiology, and Pathology of the Heart to the University of Maryland Law School as well as Therapy of Heart Disease to the same group. He has lectured on Dietary Measures in the Management of Acute myocardial infarction at the Annual Meeting of the Heart Association of Maryland. He has discussed the Causes and Treatment of Heart Attacks including Rehabilitation before the Workman's Compensation Re-Insurance Association and also on Work Evaluation and Cardiac Rehabilitation before the Southern Association of Workman's Compensation Administration. At the Maryland General Hospital, he has been responsible for all aspects of cardiovascular training. His research interests include heart disease in muscular dystrophy and definitive drug therapy in cardiopulmonary resuscitation, both projects are supported by Fellowship Support of the Heart Association of Maryland. He is President of the Section of Internal Medicine of the Baltimore City Medical Society and a Member of the Research Council and Research Allocation Committee of the Heart Association of Maryland.

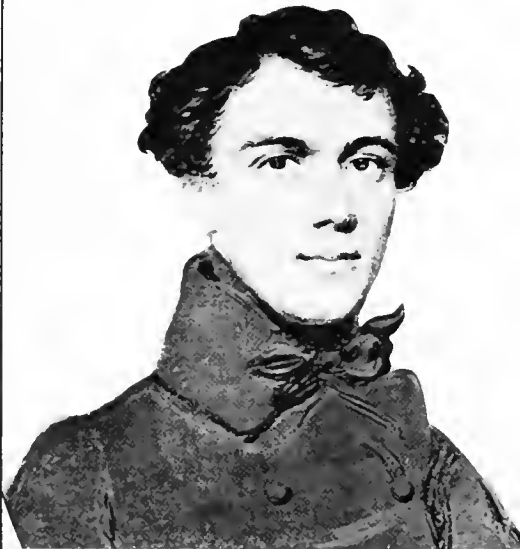
Also active in the Teaching Program of the Division of Cardiology are several cardiologists in the City of Baltimore who received their Fellowship training at the University of Maryland Medical School. We are grateful to them for their continued interest and support.



NATHANIEL POTTER, M.D.
1807-1843



ELISHA BARTLETT, M.D.
1844-1846



WILLIAM POWER, M.D.
1846-1852



SAMUEL CHEW, M.D.
1852-1863



RICHARD McSHERRY, M.D.
1863-1885



SAMUEL CLAGETT CHEW, M.D.
1886-1909



GORDON WILSON, M.D.
1913-1922



MAURICE C. PINCOFFS, M.D.
1922-1954

DIVISION OF DERMATOLOGY

FACULTY

Harry M. Robinson, Jr., M.D.
Professor and Head of Dermatology

Eugene S. Bereston, M.D.
Professor

Albert Shapiro, M.D.
Professor

Joan Raskin, M.D.
Associate Professor

Joseph W. Burnett, M.D.
Associate Professor

Stanley N. Yaffe, M.D.
Assistant Professor

M. Eugene Tudino, M.D.
Assistant Professor

Emmanuel H. Silverstein, M.D.
Assistant Professor

Bahram Sina, M.D.
Assistant Professor

Gary J. Calton, Ph.D.
Assistant Professor

Ronald Goldner, M.D.
Associate

W. Michael Goutd, M.D.
Associate

John H. Stone, M.D.
Instructor

Carolyn J. Pass, M.D.
Instructor

Larry J. Warner, M.D.
Instructor

Irvin D. Wolie, M.D.
Instructor

Mouta Dilaimy, M.D.
Instructor

Henry G. Sacks, M.D.
Chief Resident

Charles S. Samorodin, M.D.
Third-Year Resident

Frederick N. Pearson, M.D.
Third-Year Resident

Sayed A. Ghoti, M.D.
Third-Year Resident

Kenneth R. Warrick, M.D.
Second-Year Resident

Mohammed H. Talezadeh, M.D.
Second-Year Resident

Elizabeth Masten, M.D.
First-Year Resident

David L. Allender, M.D.
First-Year Resident

Hans van den Broek, M.D.
First-Year Resident

practice dermatology by regarding the patient as a unit and to insure that all patients admitted to the hospital or the outpatient department receive the best possible medical care. At both undergraduate and graduate levels, students and trainees are taught to correlate their knowledge of basic sciences with their clinical studies. The senior members of the staff and the senior residents participate actively in teaching dermatology to undergraduate students. The junior students, who receive 18 hours of clinical teaching in dermatology, are taught both at the University of Maryland Hospital and the Loch Raven Veterans Administration Hospital. The course consists of assigned reading, clinical demonstrations, and quiz seminars. In the fourth year, dermatology is offered as an elective. Students who choose to take dermatology during this period must spend a minimum of four weeks during which time they participate in all of the activities of the division. Instruction is given in the research laboratory, physicians' private offices, the outpatient clinic, the hospital, and in seminars with the residents.

Teaching at the Graduate Level

At the graduate level, residents and fellows are given instructions in the basic sciences as applied to dermatology and in clinical training. The University of Maryland Division of Dermatology is approved for the three years of training required by the American Board of Dermatology for certification. Residents and fellows are rotated for part of their clinical teaching through the University of Maryland Hospital, the Loch Raven Veterans Administration Hospital, and the Mercy Hospital. During the first year of training, basic studies and clinical dermatology are emphasized. There is some repetition of this during the second and third years of training. Weekly seminars in clinical dermatology, dermatopathology, physiology, microbiology, venereology, and immunology are given. In addition to the clinical training in the outpatient departments of the affiliated hospitals, the senior staff members utilize their private practices in the teaching program.

Once each week throughout the entire year dermatology grand rounds are held. All of the staff members participate by presenting patients from their private practices and the clinic. Once each week the Journal Club meets for two hours and at this time the residents, supervised by Dr. Joseph W. Burnett, present abstracts of the current literature in dermatology. Each trainee is encouraged to participate in some aspect of the research program during his third year of training.

At the postgraduate level, teaching members of the division collaborate with the Department of

EDUCATION

Teaching at the Undergraduate Level

The philosophy of this division is to teach and

Continuing Education by the presentation of the lectures to various general practitioner groups, participate in refresher courses, and contribute to the educational program of the American Academy of Dermatology and Syphilology.

Each year the Division of Dermatology presents a three day seminar on graduate education in dermatology. The Participants in this course are members of the University of Maryland staff and outstanding teachers of dermatology from other schools throughout the country. This course has been well received and well attended.

RESEARCH

Grants

"Study of Fish Kill Diagnostic Techniques," Department of Commerce, \$48,550.

Research Projects

1. Purification of the cutaneous pain-producing and lethal fractions in the venom of the sea nettle, Portuguese Man-O-War and sea wasp. These investigations are also designed to define the epiphysiology by which human injury is produced.

2. Further definition of the toxicological properties of *Bolocera* (sea anemone) mesenteric tentacles. The toxin present in these studies appears to be similar to that of the sea nettle.

3. Further purification of unusual antibodies present in staphylococcus epidermitis. This agent appears to selectively affect only sarcina organisms.

4. Attempts to further purify the ichthyotoxin in "red tide" microorganisms (*Gynadinium brevis*).

5. Studies on the nature of a keratinase present in Group A beta hemolytic streptococcal cutaneous infections.

6. Attempts to define the immunology of animal saproptic infections.

7. Purification of molluscum contagiosum by pulse radiolabeling in density gradient centrifugation.

8. Methods of using fish kills as a signal for detection of early pollution in the Chesapeake Bay (see Grant above).

9. Studies of the toxic effect of systemically administered thiabendazole.

PUBLICATIONS

1. H.M. Robinson, Jr.: The Diagnosis and Treatment of Fungal Infections. Charles C. Thomas Co., Springfield, Ill., 1974.

2. H.M. Robinson Jr. and C.S. Samorodin: Thiabendazole induced toxic epidermal necrolysis. Arch. Derm. in press.

3. I.D. Wolfe, H.G. Sacks, C.S. Samorodin and

H.M. Robinson, Jr.: Cutaneous protothecosis in an immunosuppressed host. Arch. Derm. in press.

4. M. Dilaimy: Pseudofolliculitis of the legs. Arch. Derm. in press.

5. J. Raskin: Treatment of Fungal Diseases of the Skin. Current Therapy, July, 1975.

6. H.M. Robinson, Jr.: Atopic Dermatitis. Current Prescribing, March, 1975.

7. H.G. Sacks, and I.D. Wolfe: Chronic lymphocytic leukemia complicated by bullous impetigo. Cutis, July, 1975.

8. R. Goldner: Tinea Versicolor. Current Prescribing, in press.

9. J.W. Burnett and G.J. Calton: Meningococcemia. Clinical Dermatology, Chapt. 16-47, 1974 Edition, Edited by D.J. Demis, R.G. Crounse, R.L. Dobson, J. McGuire, Harper and Row, Hagerstown, MD.

10. J.W. Burnett and G.J. Calton: Fungus and yeast infections of the nails. pp. 185-190. The Diagnosis and Treatment of Fungus Infections. Ed: H. M. Robinson, Jr., Charles C. Thomas Co., Springfield, ILL.

11. G.J. Calton, and J.W. Burnett: A preliminary report on a potentially new antifungal compound. pp. 553-554, Ed: H.M. Robinson, Springfield, Ill.

12. G.J. Calton and J.W. Burnett: The enzymatic content of sea nettle and Portuguese Man-O-War nematocyst venoms. Fed. Proc. 33:247, 1974.

13. J.W. Burnett and G.J. Calton: Sea nettle and Men-O-War venoms: A chemical comparison of their venoms and studies on the pathogenesis of the sting. J. Inv. Derm. 62:372-377, 1974.

14. J.W. Burnett and G.J. Calton: The enzymatic content of sea nettle and Portuguese Man-O-War toxin. Comp. Bio. Phy. 47B:815-820, 1974.

15. J.W. Burnett: Salmonellosis. Clinical Dermatology, Chapt. 16-51, 1974 Edition, Ed: D.J. Demis, R.G. Crounse, R.L. Dobson, J. McGuire, Harper and Row, Hagerstown, MD.

16. J.W. Burnett, G.J. Calton and D. Cargo: Recent investigations of the nature and action of sea nettle toxins. Proceedings of the XIV International Congress, Padua-Venice, 22-27 May. Eds: F. Flarer and F. Serri, Excerpta Medica, Amsterdam, pp. 768-769, 1974.

17. G.J. Calton, and J.W. Burnett: A comparison of the nematocyst venom in different sea nettle tentacles. Fed. Proc. 34:225, 1974.

18. J.W. Burnett: Two unusual complications of topical fluorouracil therapy. Arch. Derm. 111:398, 1975.
19. J.W. Burnett, M.H. Talezadeh and G.J. Calton: Streptococcal keratinase. Clinical Research 23: 227A, 1975.

SERVICE

The University of Maryland dermatology clinic functions five days each week from 9:00 A.M. to 2:30 P.M. The annual patient load is in excess of 13,000 visits. Within the geographical confines of the dermatology division there is a mycology laboratory, histopathology laboratory and immunofluorescent laboratory. These are special service laboratories which provide diagnostic services for the outpatients and hospitalized patients in the University of Maryland Hospital. Physicians in the community are encouraged to send specimens to all of these laboratories. Such specimens are processed and a report sent to the referring physician.

During the past year Dr. Joseph W. Burnett, together with other members of the staff, organized the Atlantic Dermatological Conference. This was attended by 400 physicians who came from Toronto, Quebec, Montreal, New England, New York, New Jersey, Pennsylvania, Delaware, Washington, D.C. and Maryland.

In February, 1975, Dr. Harry M. Robinson, Jr., Dr. Joseph W. Burnett, and Dr. Joan Raskin organized and conducted a postgraduate seminar in Caracas, Venezuela in collaboration with Dr. Jacinto Convit, Director of the Instituto Nacional De Dermatologia.

Dr. Harry M. Robinson, Jr., Dr. Joseph W. Burnett, and Dr. Joan Raskin participated actively in the program of the American Academy of Dermatology Meeting which was held in Chicago in December, 1974. Dr. Harry M. Robinson, Jr. has been nominated for the Clarke Finnerud Award by the American Academy of Dermatology.

At the annual meeting of the American Dermatological Association, held in May 1974 in Palm Beach, Florida, Dr. Harry M. Robinson, Jr., was elected Vice President. The National Program for Dermatology (NPD), a national planning group has named Dr. Harry M. Robinson, Jr., Dr. Joseph W. Burnett, and Dr. Ronald Goldner to key committees. Under the auspices of the American Academy of Dermatology the University of Maryland Division of Dermatology has organized an Alumni Group which meets annually. Dr. Harry Robinson, Jr. is the official representative of the American Academy of Dermatology to the Federal Drug Commission and is the national member of the SCOPE Committee of the U.S. Pharmacopoeia.

ANNOUNCEMENT

THE RETINAL VASCULAR SERVICE OF THE WILMER OPHTHALMOLOGICAL INSTITUTE ANNOUNCES THE SECOND ANNUAL SYMPOSIUM ON FLUORESCEIN ANGIOGRAPHY AND THE MACULA TO BE HELD JANUARY 26 AND 27, 1976, AT THE WILMER INSTITUTE, BALTIMORE, MARYLAND. DR. BEN FINE, FROM THE ARMED FORCES INSTITUTE OF PATHOLOGY, AND DR. DAVID H. ORTH, FROM THE MICHAEL REESE MEDICAL CENTER, CHICAGO, WILL JOIN 15 MEMBERS OF THE WILMER STAFF AS FACULTY FOR THE COURSE. THE PROGRAM IS APPROVED FOR SIXTEEN HOURS OF AMA CATEGORY 1 CREDIT. FOR FURTHER INFORMATION PLEASE WRITE TO MISS PEGGY RASNAKE, SECRETARY TO DR. STUART L. FINE, THE WILMER INSTITUTE, THE JOHNS HOPKINS HOSPITAL, 601 NORTH BROADWAY, BALTIMORE, MARYLAND 21205.

DIVISION OF ENDOCRINOLOGY AND METABOLISM

FACULTY

- Thomas B. Connor, M.D.
Professor of Medicine
Director, Division of Endocrinology
Director, Clinical Study Center
- John G. Wiswell, M.D.
Professor of Medicine
- Luis G. Martin, M.D.
Associate Professor of Medicine
Director, Outpatient Diabetic Clinic
- Alfonso H. Janoski, M.D.
Assistant Professor of Medicine
- Bruce Hamilton, M.D.
Assistant Professor of Medicine
Chief, Division of Endocrinology,
Veterans Administration Hospital
- Robert E. Stoner, M.D.
Instructor in Medicine, Assistant
Director, Outpatient Endocrine Clinic
- George W. Lawrence, M.D.
Instructor in Medicine
- John W. Clark, M.D.
Assistant in Medicine
- Luis G. Rivera, M.D.
Instructor in Medicine
- David M. Shearer, M.D.
Associate in Medicine
- Francine M. Camitta, M.D.
Associate in Medicine
- Isaam Cheikh, M.D.
Fellow
- Satpal Singh Dang, M.D.
Fellow
- Alejandro Tirado, M.D.
Fellow

EDUCATION

A. Undergraduate

Participation by the Division of Endocrinology in the undergraduate teaching program for medical students has been expanded. In collaboration with the Department of Biochemistry, Physiology, and Pharmacology, the Division has introduced freshman and sophomore students to clinical endocrine-metabolic disorders through lectures and demonstrations in correlative medicine seminars. Additionally, during the sophomore year, a total of 20 hours is given by Division staff members participating in the Endocrine Subject System teaching in collaboration with Departments of Pathology, Pharmacology, Social and Preventive Medicine, and Pediatrics. A detailed 100-page syllabus has been prepared by the Division staff and Department of Pediatrics for this course which has been well received by the students.

Each year selected sophomore and junior students have spent 2 month summer elective periods in research or clinical training. During the past year, 3 students carried out specific laboratory projects under the direction of A. H. Janoski, M.D.:

Mark Liu developed a sensitive and specific radioimmunoassay for progesterone and is currently utilizing the method in the study of hypertension in man. Mr. Liu continued this project on a part-time basis throughout the year.

Gregory Walker studied the production of 16 hydroxyprogesterone by monkey ovary cells in tissue culture.

Alex Sokil investigated adrenal regeneration hypertension in rats.

Senior students elected one month rotations in the course in *Clinical Endocrinology* at University Hospital and its affiliates (Baltimore VA Hospital, York Hospital). Student participation in daily endocrine ward rounds, weekly conference, and out-patient clinics form the basis for the major course content. Students are given direct responsibility for the study and management of patients under supervision of staff members. The course is designed to provide the student with in-depth experience in clinical disorders in endocrinology and metabolism. Major emphasis is placed on the physiologic and biochemical basis for these disorders. These students also participate in on-going clinical research studies. Students electing the University Hospital program, 7/1/74-6/30/75, were Gillian Karatinos, Jeffrey E. Feld, Sandra Lavoie, Gary Ruppert, and Gary Jacobs.

Each full-time staff member also participated (3 hours per week throughout the year) in the instruction of sophomore students in the principles and practical aspects of physical diagnosis in the course, "Introduction to Clinical Medicine".

B. Graduate

The major thrust of the graduate and post-graduate teaching program is directed at four levels—medical residents, full-time post doctoral fellows, physicians in practice both locally and out-of-state at post graduate teaching conferences, and thru participation in research meetings locally and nationally.

Increasing numbers of senior medical residents continue to rotate through the training program. Requests are received for training of residents from non-affiliated hospitals in Baltimore, but, because of limitations of space and facilities, only a few of these outside requests can be fulfilled. Endocrine teaching ward rounds are held three times each week through the year for fellows,

residents, students and staff. Weekly endocrine conferences, Journal Club, and a separate bi-weekly clinical conference in diabetes are also held during the academic year with participation by these same groups and with attendance as well by physicians from surrounding community hospitals. The staffs of these hospitals and at out-of-state institutions were also recipients of post-graduate instruction through lectures and conferences given by Division members on selected endocrine-metabolic topics during the year.

Three full time post-doctoral fellows obtained more advanced training through participation in the clinical and research investigative training programs within the Division (see also Research Programs and Publications).

Senior Medical Residents rotating in Endocrinology, each for 1-2 month periods were:

C. Cline, C. Merchant, R. Mellinger, A. Katz, W. Castillo, (Union Memorial Hospital). I. Cohen, T. Murphy, C. Nagle, J. Applefeld, Dr. Ruiz, (Maryland General Hospital) C. Restivo, J. Witten, N. Haines, K. Lichtenfeld, S. Morrison, A. Metzger.

C. Other Faculty Teaching Responsibilities

Each full-time faculty member spent 9 to 18 weeks during the academic year attending on one of the general medical services in the instruction and supervision of junior and senior students and house staff in the Internal Medicine curriculum. Each full-time and part-time staff member also conducted endocrine consultation rounds for 4-12 weeks with undergraduate students, house staff, and fellows participating.

During the past year a joint Thyroid-Nuclear Medicine Conference was initiated. The conference was held biweekly under the direction of Doctors Wiswell and Malcolm Cooper. Current patients with thyroid disease were discussed in depth with staff members, fellows, residents, and students.

D. Establishment of Diabetes Education Program

Under the guidance of Luis G. Martin, M.D., Director of the Diabetic Clinic and T. B. Connor, M.D., Director of Endocrinology and Metabolism, substantial progress has been made in establishing the nucleus of a Diabetes Education Center located in the Out-Patient Department of the North Hospital. In this activity, Doctor Martin has received major assistance from the Department of Nursing and Department of Nutrition, who have assigned nurse specialist and dietician respectively, to assist in the establishment of the Center.

The major goals of the program are three fold:

- (1) To establish a Diabetic Education Center in which intensive education of the patient is

carried out with primary emphasis on the nature of the disease, its treatment, and prevention of complications.

- (2) Development of the team approach (physician, nurse, dietician, podiatrist, and other supporting personnel) to initiate and continue the patient's education and to evaluate his response to treatment.
- (3) To instruct medical students, physicians, and nurses in developing a more effective approach in the education of the diabetic patient.

This program was begun in June 1974. Patients are referred from both the in-patient and ambulatory services of the hospital. Approximately 15 to 20 patients attend each "course" which consists of five 2-hour sessions: two on diet management and three on the general principles and management of diabetes mellitus. The sessions are held every Tuesday morning for 5 successive weeks and are continued throughout the year. Attendance and patient acceptance has been excellent. Thus far 247 patients have completed the course. Because of the increased demand for this educational program a second identical series of courses will be offered beginning July 1975; these will be held every Wednesday morning. With the increased number of requests for patient participation in this program it is anticipated that by July 1976 the center will provide daily classes if additional personnel to carry out the program can be obtained.

To further assist in implementing this program the following has been accomplished in the past year:

- (1) Preparation of a booklet outlining the course content and containing the essentials of the education program in readily understandable language.
- (2) Selection of audio-visual aid facilities.
- (3) Institution of a program for assessment of patient's knowledge of the diseases both before and after the patient has completed the program.
- (4) Standardization and coordination of the diabetic teaching program for nurses throughout the hospital.
- (5) Participation of medical students and residents in these instructional programs.

RESEARCH

B. P. Hamilton, M.D. (These studies were financed by V. A. Research Funds)

1. Laboratory Studies:

- a. The development and use of radioimmunoassays for vasopressin and neurophysin in the study of clinical disorders of water metabolism.
- b. A study of the iso-enzymes of alkaline phosphatase and the osteoblastic reaction to osteolytic bone metastases.

2. Clinical Studies:

- a. A trial of lithium carbonate and demeclocycline in the treatment of the syndrome of inappropriate ADH.
- b. A study of minoxidil in the treatment of refractory hypertension. (with Emilio Ramos, M.D.)
- c. Serial evaluation of cardiac status during the treatment of Paget's Disease of bone with mithramycin. (with Alfred F. Parisi, M.D.)
- d. Urinary excretion of acid in patients with cirrhosis of the liver.
- e. Treatment of certain inoperable malignant tumors with streptozotocin.
- f. Influence of muscular exercise and serum renin levels on the hemodynamic features of systemic arterial hypertension. (with Michael L. Fisher, M.D.)
- g. The use of systolic time intervals as an index of thyroid dysfunction. (with Alfred F. Parisi, M.D.)
- h. The study and follow-up of a large family with Sipple's Syndrome (Familial medullary carcinoma of the thyroid, parathyroid hyperplasia and pheochromocytoma)
- i. Trial of new β blocker in essential hypertension. (with Michael L. Fisher, M.D. and A. Janoski, M.D.)

A. H. Janoski, M.D.

Human Adrenal Steroids with Natriuretic Properties

During the years 1972 to 1975, substantial advances have been made in the broad research program entitled "Human Adrenal Steroids with Natriuretic Properties". This research is supported by NIH (U.S. Public Health Service) by a 3 year grant totaling \$90,000, awarded in April 1, 1972. During this period, rabbit antisera to 16 α hydroxyprogesterone, 17 α hydroxyprogesterone, and progesterone (steroids with natriuretic properties) were obtained via immunization and highly specific, sensitive radioimmunoassays were developed by this laboratory. Support for animal facilities was funded by the Bressler Research Fund. To supplement the

studies, radioimmunoassays for plasma renin and urinary aldosterone were successfully developed. Clinical study protocols on the following have been completed:

1. Determination of the effects of adrenal stimulation and suppression on plasma 16 α hydroxyprogesterone (16-OHP) in normal subjects.
2. Determination of plasma 16-OHP in normal women during the follicular and luteal phases of the menstrual cycle.
3. Plasma 16-OHP concentrations in normal pregnancy and in medical complications of pregnancy.
4. Amniotic fluid concentrations of 16-OHP.
5. Evaluation of sodium depletion and high sodium intake on renin, aldosterone, and 16-OHP in normal subjects and patients with essential hypertension.

In all these studies the objective has been to delineate the relationship of the aforementioned steroids with natriuretic properties to sodium balance in man. This balance requires the interplay of the renin-aldosterone system and its effect on the renal tubules. Studies have been undertaken in pregnancy because of known elevation of aldosterone levels in the last trimester possibly related to antagonism by significantly increased levels of natriuretic. The relationship of these steroids to hypertension and the sub-groups of renin levels is unknown. Findings to date reveal that 16-OHP increases in the third trimester of pregnancy, during the luteal phase of the menstrual cycle, is very high in umbilical cord blood and amniotic fluid, and is increased with adrenal stimulation and decreased with adrenal suppression. Knowledge of the physiologic role of 16-OHP is lacking but greater insight is being attained by the use of the highly specific radioimmunoassay developed at the University of Maryland Hospital.

Effect of Halofenate on Adrenal Secretion of Cortisol

Merck, Sharpe and Dohme provided \$37,500 to study the effect of Halofenate on adrenal function; this is an ancillary investigation to the double-blind study of Halofenate in hyperliproteinemia using the same study patients. Whether or not Halofenate affects adrenal function is a necessary prerequisite for FDA approval of this valuable lipidlowering drug. This laboratory has established that no specific adverse effects occurs in adrenal function during long term Halofenate usage.

Hypertension

With support from New England Nuclear Corporation (\$6,400) and NIH funds, 41 normal volunteers were evaluated to determine the physiologic autoregulation of the renin-angiotensin-aldosterone system during a control phase, after Lasix administration, after a low sodium intake, and after sodium loading. These studies confirmed the correlations between sodium excretion and urinary aldosterone excretion or concomitant plasma renin levels and provided a basis for a similar indepth evaluation of patients with primary hypertension in an ambulatory setting. Previous investigations necessitated the expense of hospitalization for such studies. To date, 30 patients with primary hypertension have been evaluated and 7 with low renin hypertension have been diagnosed. Studies are commencing on further evaluation of the low renin sub-group to determine the presence of mineralocorticoid.

In collaboration with Doctor Hamilton of the VA hospital in Baltimore and Sandoz Corporation (\$12,000) renin levels and urinary aldosterone concentrations are being evaluated in hypertension patients treated with a new and better adrenergic blocking agent.

Luis G. Martin, M.D.

1. Disappearance rates of plasma insulin after removal of islet cell tumor of the pancreas. Follow-up studies to determine the ability of the pancreas "to recover" its normal insulin production after chronic suppression by the islet cell tumor are in progress.

2. Effect of "calciuric" (Lasix) and "anticalciuric" (Hydrochlorothiazide) diuretic agents on the secretion and plasma levels of parathyroid hormone also is being conducted.

In Collaboration with T. B. Connor, M.D.

Studies in renal osteodystrophy—the effect of vitamin D analogues on the bone disease and serum parathyroid hormone levels. Preliminary results in two patients indicate impressive healing of bone with a concurrent reduction in serum parathyroid hormone levels in both patients during the daily administration of 0.25 mg dihydrotachysterol (DHT) and phosphate-binding gels over a 12 to 24 month period. These investigations are being extended to a larger group of patients and indicate that DHT is an effective agent in healing the skeletal lesions associated with uremic bone disease. Results suggest that DHT and related Vitamin D metabolites may be involved in the direct feedback regulation of parathyroid hormone secretion and this hypothesis is being tested.

J. G. Wiswell, M.D.

A method to measure triiodothyronine quantitatively in human serum has been developed employing a commercial kit produced by Abbott Laboratories, Inc. Sera have been analyzed from patients with various types of thyroid disorders. It is planned to continue these observations measuring serum triiodothyronine in patients receiving this compound, following I-131 therapy during antithyroid drug therapy, after TSH stimulation, after TRH stimulation, and during T3 suppression tests. These studies should provide further information on circulating T3 as well as T4 in various types of thyroid disorders.

Cliff Merchant, M.D., and T. B. Connor, M.D.

Studies of Circulating Vitamin D in Disorders of Calcium Metabolism

Levels of the 25-OH metabolite of vitamin D were measured in patients with disorders of calcium metabolism. Distinctly lower levels of 25-OH D have been found in patients with dietary-induced, vitamin D deficiency osteomalacia and in patients with hypocalcemia due to intestinal malabsorption syndrome (some of whom did not have osteomalacia). Appropriate therapy resulted in a return of serum 25-OH D to the normal range. Patients with untreated parathyroid disease had normal values. Additional studies are in progress, but these results indicate that measurements of 25-OH D in serum should be useful in evaluating vitamin D status in patients with disorders of calcium metabolism and in clarifying the role of vitamin D in the pathogenesis of hypocalcemic states in man. It is also apparent that low levels of 25-OH D in serum may occur in the absence of significant skeletal disease. The latter finding may be clarified by measurements of other vitamin D metabolites (such as 1, 25, (OH)₂D) in serum and is under investigation. (supported in part by a grant from the Bressler Research Fund).

R. E. Stoner, M.D., Julio Freijanes, M.D., I. Cheikh, M.D. and T. B. Connor, M.D.

A Controlled Clinical Study of the Effects of Halofenate, Clofibrate and Placebo in Patients with Elevated Serum Cholesterol and/or Triglyceride levels.

This study was carried out between 1972-1975 and supported by a grant-in-aid from Merck, Sharp and Dohme. Its purpose was to assess the relative effectiveness of two lipid lowering agents (Clofibrate and Halofenate) in correcting hyperlipidemia in human subjects. Patient participation in the study was completed in late June 1975. Data are in process of computer analysis and final results are not yet available.

In the first year of the study Halofenate and Clofibrate were compared with placebo. In the second year, only Halofenate and Clofibrate treated groups were compared. The double blind technique for medication administration was maintained throughout the study. Hypercholesterolemia and/or hypertriglyceridemia were required for patients to enter the study. Forty-three patients completed the first year of study and 36 patients continued the study through the second year.

Preliminary analysis of the results indicates that Halofenate significantly lowered serum triglycerides in 95% of patients receiving the drug. Clofibrate reduced serum triglycerides significantly in 50% of patients the first year and in 77% of patients during the second year. Effect upon serum cholesterol was less impressive in all groups with significant reduction in serum cholesterol occurring in only 35% of both treated groups. For purposes of this study a 15% lowering of serum triglyceride concentration and a 10% lowering of serum cholesterol below pre-treatment values was considered significant. Especially impressive was a lowering of serum uric acid (2.0 mg% from control values) in 65-70% of patients treated with Halofenate whereas Clofibrate was associated with similar reductions in serum uric acid in less than 10% patients. A modest reduction in fasting blood glucose also occurred in approximately 70% of patients receiving Halofenate whereas Clofibrate had no greater effect in lowering blood glucose than did placebo. This blood glucose lowering effect is currently undergoing thorough review to determine whether this might have been due to weight reduction, diet change, drug administration, or other factors. Both drugs were well tolerated and no major side reactions attributable to the drugs were observed.

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SERVICE

Specialty Clinics

The Division is responsible for the operation of two out-patient clinics to which consultations are referred. The Endocrine Clinic is held every Monday afternoon and a Diabetic Clinic every Thursday morning. These clinics represent major teaching and training areas where fellows, residents, and students participate regularly. At each clinic session five or six members of the Division are present to assist in the supervision of the trainees and in rendering the consultations. The numbers of patient visits recorded in these clinics during the past year are: Endocrine Clinic, 1140 patient visits; Diabetic Clinic, 1456 patient visits. Additionally each staff member is also responsible for consultations on private patients, both ambulatory and in-patients.

Endocrine Laboratory Diagnostic Services

The endocrine laboratories have continued to provide endocrine diagnostic assays as requested by staff physicians. These assays are not performed elsewhere within this institution. During the past year the number and type of biochemical assays performed as a laboratory service for patients by the endocrine laboratories were as follows:

Urine free cortisol	105
Plasma cortisol	243
Urinary aldosterone	71
Quantitative VMA (urine)	368
<i>Peptide Hormone assays</i>	
TSH	280
Growth Hormone	188
Insulin	182
Parathyroid Hormone	316
Other (Precision serum calcium, magnesium, urinary oxalate, etc.)	154

DIVISION OF GASTROENTEROLOGY FACULTY

- Frank L. Iber, M.D.
Professor of Medicine
Chief, Division of Gastroenterology
- Richard A. Baum, M.D.
Assistant Professor of Medicine
- Ethelred E. Carter, M.D.
Assistant Professor of Medicine
- Renan J. Dureza, M.D.
Assistant Professor of Medicine
- Sohrad Mobarhan, M.D.
Assistant Professor of Medicine
- Richard E. Sampliner, M.D.
Assistant Professor of Medicine
- Safwat Absood, M.D.
Fellow
- Sudhir Dutta, M.D.
Fellow
- Robert Gross, M.D.
Fellow
- Frank Hamilton, M.D.
Fellow
- George Galifianakis, M.D.
Fellow
- Shawki Malek, M.D.
Fellow
- Mahin Shamszad, M.D.
Fellow
- Elaine Richman
Research Associate

OPERATING PLAN AND IDEOLOGY OF THE DIVISION

High quality patient care to private, ward, in and out patients bringing the best of medical science to them was the first goal of the Division. Education to undergraduate medical students, house-staff, and fellows and postgraduate education for the community physicians was our second goal. Conducting clinical research was our third goal. Progress was made on all fronts. To facilitate patient care, all personnel in the Division were rotated between the University Hospital, the Loch Raven and Fort Howard VA programs and, occasionally, carried out responsibilities for our patients at Montebello, U.S Public Health, and the Good Samaritan Hospital

EDUCATION

Undergraduate—A continued successful Subject Systems Program in Gastroenterology under the chairmanship of Dr. Richard E. Sampliner was offered and well received by the second-year medical students. Some ten subjects were explored in depth and individual seminars for 16 groups of 20 students each were offered on two afternoons and

were popular. At least 35 junior and senior students took a clinic elective in GI disease for one or more months. Our staff participated in approximately 30 teaching sessions in conjunction with other departments in GI, alcoholism, liver disease, and physiology. Two students received Dean's Summer Fellowships in our Department. Four of our staff conducted physical diagnosis training for eight students, two others conducted the first year training course in physical diagnosis, and all six of our senior staff and all seven fellows undertook senior students preceptorship for one or more months in the outpatient clinics.

Graduate—The Divisional senior staff attended on service in general medicine an average of 11 weeks each and on GI service an average of six months each. Nineteen residents and interns took a GI rotation and at least seven residents have chosen further training in GI. The GI senior staff rounded three to five times weekly at each of the three hospitals and a senior staff member was in attendance in the three hour outpatient clinic sessions held twice weekly. In addition, Dr. Frank L. Iber rounded weekly at each Loch Raven VA and University Hospitals and every other week at Fort Howard VA Hospital. Seven part-time faculty members aided in the operation of our outpatient clinic. GI Grand Rounds were held weekly with stimulating guest speakers. Regularly scheduled activities also included Pathology, Radiology, and GI Journal Clubs which were held twice monthly and a weekly Liver Conference in conjunction with Dr. Willis Maddrey of Johns Hopkins. GI Grand Rounds were held three times at Maryland General and the invitation of Dr. Howard Raskin.

The GI Fellowship Program has increased in popularity attracting far more applicants than can be accommodated. Excellent candidates have been selected already for 1976.

Visitors of international stature were brought to the medical school to present rounds and conferences. These included Professor Hyman Zimmerman of Washington, D.C., Dr. Harold Farmer of the Cleveland Clinic, Professor Han Popper of Mt. Sinai in New York, Dr. John Yardley of Johns Hopkins and Dr. Charles Whitfield of Springfield, Illinois. Others brought here with the assistance of Dr. Felix Heald were Donald Ostrow of University of Pennsylvania and Dr. James Melby of Boston University.

The citywide Liver Seminars were held and attended six times this year.

Postgraduate—A highly successful Gastroenterology course was given by Maryland faculty exclusively and was attended by 75 practitioners. It was considered sufficiently worthwhile to make it an annual affair. Our entire staff participated in six other Maryland postgraduate courses. A four-day postgraduate course in Puerto Rico for 11 physicians was given under the auspices of the Office of Postgraduate Education.

RESEARCH

Many programs have developed momentum and definite accomplishments have been documented.

1. Pentillamine in the prevention of alcoholic cirrhosis. 32 of 40 patients now entered. To be analyzed when patients are completed.

2. Glutathione levels in erythrocytes of alcoholics in conjunction with Dr. J. Hsu of Loch Raven. Preliminary research completed, abstract written, and more biochemistry needed in depth.

3. Fibrinogen turnover in liver disease in conjunction with Dr. Malcolm Cooper. 17 patients completed.

4. The metabolism of sulphur-35 labeled disulfiram in normals and in patients with liver disease. 14 patients studied and impressive differences are present. Abstract written on this work.

The persistence of disulfiram effect after cessation of ingestion in patient with normal and damaged livers. Abstract written showing differences.

A test for compliance with disulfiram dosage using a simple breath test (summer student project with Ms. Susan Paulson Miller.)

5. The liver status in the asymptomatic carrier of the Hepatitis B antigen. 55 patients studied, 23 biopsied, and an abstract written.

6. The metabolism of acetaminophen (Tylenol) in patients with normal and abnormal livers and with concurrent administration of alcohol. Abstract written.

7. The esophageal and rectal sphincter function in patients with peripheral neuritis.

8. A longitudinal look at the natural history of alcoholic hepatitis in Baltimore.

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SERVICE

Senior faculty and fellows shared responsibility at all times for patient care at the University, at Baltimore VA, and Ft. Howard Hospitals. This assured adequate consultative assistance and senior staff backup consultations usually were seen the

same day they were received. Equality of care of ward and private patients was achieved. Endoscopic and biopsy procedures increased about 33 percent over the previous year. Colonoscopy and polyp resection, pancreatic and hepatic duct cannulation via the duodenoscope, and percutaneous cholangiography increased in approximately 3000 fiberoptic procedures and 1500 biopsies were performed by our group during the year. Outpatient clinics held twice weekly and averaging 45 patients each session are operating smoothly.

Service laboratories at both University Hospital and Baltimore VA Hospital are available but are underutilized. Sigmoidoscopic facilities and instruction are widely used and use is increasing. Consultative and teaching on all GI aspects including radiology and biopsies are widely utilized and increasing. Emergency services are available and widely used with over 300 procedures being conducted out of regular hours during the year.

Dr. Richard A. Baum, Medical Director of the Baltimore Comprehensive Public Inebriates Project, brought this organization from a demoralized nearly collapsing unit to a fully occupied first rate detoxification unit—a model for the East Coast.

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DIVISION OF HEMATOLOGY

FACULTY

Rouben M. Jiji, M.D.

Associate Professor of Medicine

Sheldon Amsel, M.D.

Assistant Professor of Medicine

R. Ben Dawson, Jr., M.D.

Assistant Professor of Medicine and Pathology, Director, Blood Bank and Transfusion Service, Blood Research Laboratory and Baltimore Rh Typing Laboratory

Meyer R. Heyman, M.D.

Fellow

EDUCATION

On the undergraduate level, the Division is responsible for the teaching of hematology to the first and second year students in the School of Medicine and to the students in the School of Medical Technology; the latter course is given twice each year. In addition, hematology is taught during the clinical years by means of formal and informal case conferences. Hematology was chosen as an elective by 3 students during the past year.

Weekly hematologic conferences are given to the house officers. Twice each week ward rounds are conducted and 11 medical residents spent one or two months on the service. An informal problem-solving conference on hematologic disorders is held each week in the Hematology Clinic. Tri-weekly review of bone marrow examination and interpretation is held for residents in Clinical Pathology who rotate through Hematology.

At the postgraduate level irregular conferences, both formal and informal, are conducted at South Baltimore General, Mercy, Montebello State and Loch Raven VA Hospitals. A postgraduate seminar was held on "Recent Advances in Hematology" which was well attended and received.

RESEARCH

Research interests of the faculty encompass a broad range of applied hematology problems. Dr. Jiji is conducting studies on the ultrastructure of cells in sideroblastic anemia, on primary refractory anemia and on drug-induced blood dyscrasias. Dr. Amsel is joining Dr. Samuel Charache of the Johns Hopkins University in a cooperative study of sickle cell disease. Dr. Dawson has several projects mainly concerned with blood component preservations. He is supervising Steve Hilbert, a doctorate candidate, whose research in platelet preservation is supported by a grant of \$5,000 from the Baltimore Rh Typing Laboratory.

An additional \$8,300 grant from this Laboratory is being used to support studies on blood preservation. The Department of Defense has granted \$43,223 for the study of blood preservation and hemoglobin function.

Dr. Jiji in collaboration with Doctors Barrett and Valigorsky prepared an exhibit for the American Society of Clinical Pathology meeting entitled "Electron Microscopy of Human Bone Marrow".

PUBLICATIONS

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- and nutrients: I. Pyruvate and DHA (Dihydroxyacetone). Clin. Research 22:700a, 1974.
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 19. R. B. Dawson: Editor, Transfusion Reactions, AABB, Washington, D.C., 1974.
 20. R. B. Dawson: Editor, Transfusion Therapy, AABB, Washington, D.C., 1974.
 21. R. B. Dawson: New concepts in transfusion therapy: Guidelines for the technologist and medical director. 18th Annual Post-Grad. Medical Technology, Kam Loops, British Columbia, May, 1975.
 22. R. B. Dawson: Modern red cell preservation: Studies and concepts. 2nd. Inter. Symp. on Hospital and Transfusion Technology, Paris, France, 1975.
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 24. R. B. Dawson: Blood preservation: Using metabolic regulators and nutrients. I. Pyruvate and DHA (Dihydroxyacetone). Military Medicine.
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 28. R. L. Passamaneck, D. M. Harmening, M. Taghizadeh, P. A. Wright, R. B. Dawson: Preparing packed red cells from stored whole blood: Mixing improves quality. Submitted to Inter. Soc. Blood Transfusion, July 1975.
 29. R. B. Dawson: Blood preservation: Using metabolic regulators and nutrients. II. Inosine and methylene blue. Submitted to ASCP.
 30. R. B. Dawson, F. R. Camp: Blood storage XIV Adenine maintenance of ATP in a preservative with high pH (to maintain 2,3-DPG for hemoglobin function). Submitted to J. Lab. Clin. Med.
 31. R. B. Dawson et al: Hemoglobin function in stored blood. XVII. Maintenance of red cell 2,3-DPG (function) and ATP (viability) for six weeks in CPD-adenine-inosine-methylene blue. Submitted to Vox Sanguinis.

SERVICE

Service responsibilities of the Division are divided into two areas; 1) clinical patient care, both in patient and out patient, and 2) supervision of clinical laboratories related to hematology and blood banking. The diagnostic responsibilities to hematologic problems are related primarily to bone marrow examinations and interpretations. During the year, 2953 outpatient visits were made to the hematology Clinic, 21 private patients were admitted to the hospital and 322 ward consultations in hematology were made. Members of the Division performed 260 bone marrow examinations.

Participation at all community levels in professional organizations and committees by members of the Division is considerable. The Division cooperated with the National Hemophilia Foundation by sponsoring a full day site visit by the director and members of the Foundation to the University of Maryland Hospital in April. The objectives of this visit were to assess quality of care and care delivery so that recommendations might be made to upgrade the quality of care and to develop a more effective care delivery system on a national level.

DIVISION OF INFECTIOUS DISEASES

FACULTY

Richard B. Hornick, M.D.
Professor of Medicine, Director

Merrill J. Snyder, Ph.D.
*Associate Professor of Medicine,
Associate Director*

Frank M. Calia, M.D.
Associate Professor of Medicine

Harold Standiford, M.D.
Assistant Professor of Medicine

William E. Woodward, M.D.
Assistant Professor of Medicine

Myron M. Levine, M.D.
Assistant Professor of Medicine

Yasushi Togo, M.D.
Assistant Professor of Medicine

Joseph P. Libonati, Ph.D.
Assistant Professor of Medicine

Ellen R. Wald, M.D.
Assistant Professor of Medicine

Lorraine G. Fiset, Ph.D.
Assistant Professor of Medicine

Ronnie Kluge, M.D.
Assistant Professor of Medicine

Robert H. Gilman, M.D.
Assistant Professor of Medicine

Ellis S. Caplan, M.D.
Fellow

Trenton Reubuch, M.D.
Fellow

John McConville, M.D.
Fellow

Celeste Woodward, M.D.
Fellow

Carlos Lopez, M.D.
Fellow

EDUCATION

Educational activities of this Division are provided primarily by our clinical teaching program. Many senior students elect Infectious Diseases as a clinical service rotation either at the University of Maryland Hospital or the Veterans Administration Hospital. A smaller number select the service at Mercy Hospital under the direction of Dr. Jay Goodman. The students are expected to work up all infectious disease consultations, attend teaching ward rounds with the attending physician or fellow, attend the weekly infectious disease clinical and research conferences and present a brief discussion of a selected topic at the end of their rotation.

Members of the Division also teach in other courses—physical diagnosis, bacteriology, biochemistry and pharmacology.

One post-graduate course was held this past year. In May, a course sponsored by the American College of Physicians on Clinical Immunology was held in Baltimore. This Division was responsible for all arrangements carried out by Dr. Merrill J. Snyder and faculty members were involved in the scientific portion of the program. Numerous other lectures were given in other post-graduate courses.

RESEARCH

The Division has been involved in clinical investigations involving vaccine and drug evaluations for a number of years. One of our major programs has involved volunteers and has been conducted at the Maryland House of Correction. In this area studies on the pathogenesis and control of typhoid fever, cholera, shigellosis, *E. coli* diarrhea, malaria, influenza and the common cold have been conducted with the help of willing prisoner volunteers. In the past one and one-half years, the criticism of this program has intensified and has required much time and effort to present objectively facts about the program in order to rebut a great deal of uninformed emotional outpourings. In addition, a suit has been filed by the American Civil Liberties Union on behalf of eight inmates which may decide whether inmates have a right to participate in medical experimentation. Despite the harrassment and extra work associated with this lawsuit, significant progress has been made in these volunteer studies. Oral vaccines seem to be feasible for typhoid and cholera based on ongoing studies in volunteers. Mutant, live attenuated organisms have been given by mouth to volunteers and subsequently volunteers have been challenged. These studies indicate excellent protection from disease and shedding of the pathogen in the stool. A vaccine for malaria has been evaluated and for the first time an effective vaccine has been developed. A number of potential antiviral drugs have been tested but each has been shown to be of little clinical benefit to volunteers. Much additional work is needed before antiviral drugs will become reality.

In addition to the ongoing studies at the Maryland House of Correction, a new volunteer facility was established in the past year which is housed in the University of Maryland Hospital. This unit is supported by the National Institutes of Health in order to carry out (with research workers at the NIH) collaborative studies of viral and mycoplasmal vaccines. Volunteers are obtained through newspaper advertisements and thus both sexes participate, a real research advantage not available in a prison unit. Many interesting sociological and psychological events have occurred since this unit has been opened. In order to document these events, as well as obtain prospective psychological test data on people who volunteer for medical

experiments, a psychologist has been hired. Hopefully this unit will not only provide information on respiratory vaccines but also provide unique profiles of people participating in medical experimentation.

Additional research aims involve in vitro and animal studies designed to elucidate hypersensitivity or cellular immune mechanisms involved in vaccine administration. Investigations into antibiotic activities in vitro and in vivo are a major research effort of those staff members of the Division at the VA Hospital. This group has become recognized nationally for their work with antibiotic synergistic mechanisms.

Occasional studies on drug bioavailability characteristics were conducted with support from the Food and Drug Administration.

RESEARCH SUPPORT:

- U.S. Army — 1. Study of Shigella Vaccines in Man
2. Pathogenesis, Detection, Prevention and Treatment of Infectious Diseases of Military Importance
- N.I.H. — Study of Viral Vaccines in Man
- W.H.O. — Study of Immunogenicity and of the Effectiveness of Cholera Vaccines
- F.D.A. — Biologic Availability Testing
- Independent Pharmaceutical Grants:
E.I. duPont & Company
Lederle Pharmaceuticals
Smith Kline & French Company

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SERVICE

The Infectious Disease units at University of Maryland Hospital and Veterans Administration Hospital have the responsibility of maintaining effective hospital infection control programs at the respective hospitals.

The consultation service is very active and serves all departments of the hospital. There is no formal Infectious Disease clinic, but followup care is provided by members of the Division to selected patients.

Dr. Hornick is a consultant to the World Health Organization and served as an evaluating consultant on antibiotic drugs to the 1975 Pharmacopia. He is also a member of the Board of Trustees of Mercy Hospital. Dr. Hornick currently is Governor for Maryland of the American College of Physicians.

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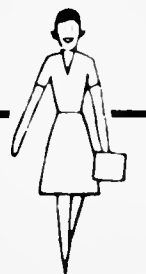
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MEDICAL AMBULATORY CLINIC

FACULTY

At the request of Doctors Theodore E. Woodward and Maureen Henderson, Doctor William S. Spicer, Jr. has assumed the position of Director, Ambulant Medical Services. Doctor Herbert A. Kushner has been named Associate Director, Ambulant Medical Services. The integrated ambulatory services comprise Medical Clinic, Primary Care Clinic and Medical Screening Clinic. There are thirty-five attending physicians, twelve nurse-practitioners, ten registered nurses, nine nursing assistants, one clinical pharmacist, one social worker, two dieticians, one technician, and sixteen secretarial and clerical personnel involved on a full or part-time basis in the operation of the integrated services.

OPERATING PLAN AND IDEOLOGY OF MEDICAL CLINIC

The past year has been devoted to integrating the Medical Clinic with the Primary Care Clinic in order to improve both training and patient care. Although the old Medical Clinic has not disappeared, it no longer requires attendings, fellows, and interns in provider roles and is evolving into a true consultative clinic. Most of the ongoing care of stable chronic disease is delivered by nurse-practitioners as part of a team consisting of a senior faculty member, second year residents, two interns. The team checkout system has been modified to accommodate the new providers.

Our educational goal in reorganizing the Medical Clinic is to provide the house officer with a more stimulating and broadening experience than his previous weekly clinic. In conformity with the primary care commitment of the Department of Medicine, we are attempting to train true general internists, capable of providing the entire continuum of primary patient care but, equally important, capable of leading the patient care team both medically and administratively. We expect that the role of the Department of Medicine will of necessity extend beyond the University of Maryland Hospital; first steps have been taken in this direction.

EDUCATION

A. Undergraduate Program

Two fourth-year medical students now spend full-time in the Clinic, dividing their hours between new patient data base acquisition and followup care. Their new patient preceptors consist of senior faculty members, both full-time and part-time. The cooperation of the voluntary staff has been encouraging.

Many attendings find the student program relevant to the actual practice of medicine.

The program is becoming increasingly attractive to fourth-year medical students.

B. Graduate Program

Physicians attached to the nurse-practitioners participate in daily noon-time audits and a weekly ambulatory conference as well as a seminar.

During the year 1974-75, 719 patients were seen in the Medical Clinic and 9,500 patients in Primary Care.

PLANS FOR IMPROVEMENT

1. The teaching program will be improved:

A. *Third-year medical students will eventually be introduced to ambulatory care through participation in the nurse-practitioner modules. This will provide them with a ready-made clinic population which will not be abandoned on change of rotation.*

B. *The ambulatory program for fourth-year students will be expanded to allow more students to participate.*

C. *House staff participation in the Medical Clinic will be audited even more closely. Hopefully, house staff will be assigned to either the Veterans Administration or University of Maryland Clinics on entrance into the University of Maryland Hospital, and will be required to maintain attendance at a single institution during their entire tenure.*

2. Appointment System:

An appointment system has effectively been implemented since nurse-practitioner duties are limited to the outpatient area, precluding the conflict of duties which often led to physician absence. Increase in consultative medical practice will allow for more flexibility in patient scheduling in the future.



DIVISION OF NEPHROLOGY

FACULTY

John H. Sadler, M.D.

*Associate Professor of Medicine
Head, Division of Nephrology*

Emilio Ramos, M.D.

Assistant Professor of Medicine

Andrez Nowakowski, M.D.

Assistant Professor of Medicine

John R. Little, MB, Ph.D.

Associate Professor of Medicine

Maryland General Hospital

Cedric A. Bryan, M.D.

Clinical Assistant Professor of Medicine

Michael Yen, M.D.

Clinical Assistant Professor of Medicine

EDUCATION

The formal Nephrology educational programs in the University of Maryland Hospital and Medical School have been expanding progressively since the reestablishment of this Division in 1972. The postgraduate Nephrology fellowship program has two first year and two second year fellows. We have two second year medical residents and two or more senior students on the renal service throughout the academic year. Regular weekly clinical conferences and Nephrology seminars are carried out by faculty with the assistance of these residents and students. Biweekly Renal Biopsy Conferences are held with Doctor Ray Nagle of the Department of Pathology. We share conferences and teaching activities with Doctor Nagle and Doctor E. J. Ruley of the Department of Pediatrics.

These conferences are directed at two levels: first, to provide a sound base of pathophysiologic understanding and experience, and to develop a rational approach to renal disease and fluid and electrolyte disturbances; second, to explore in depth the mechanism and character of the disease processes encountered and evaluate the state of knowledge available in these specific instances. Literature review, case surveys, and laboratory reports are used in these efforts.

Throughout the early development of our teaching program, we have used the model of high quality patient care as the appropriate mechanism in which a physician may learn physiology, pathology, therapeutics, and observational skills in Nephrology.

The sophomore renal block, in the second semester, is a joint project of pathology, urology, and pediatric nephrology. The major types of pathophysiology, clinical evaluation of renal disease, and renal function are taught by this Division. Renal influences on drug metabolism and

excretion, management of hypertension, and pathophysiology of hypertensive cardiovascular disease also are taught to these students by Nephrology.

Additional lectures to first year medical students on renal failure and hypertension are presented by this Division.

Our efforts attempt to provide the student with a grasp of the language specific to the kidney, tests of renal function, and a decision-making framework to study patients with renal disease. Emphasis is placed on characteristic patterns of disease syndromes and settings. The usefulness of physiologic knowledge is pointed out by its use as a guide in the total approach to diagnosis and the application and evaluation of therapy.

The Maryland Institute for Emergency Medicine staff receives a series of lectures on renal function, renal failure, dialysis techniques and other therapy each year, consisting of a total of 4 to 8 hours delivered by the faculty of this Division. These are basic science refreshers with direct applicability.

We have in this year, as in prior years given a series of lectures to the Nurse Practitioner students on body fluids and electrolytes, renal function, hypertension, and renal failure. Each is related specifically to common disease states they will encounter.

We have participated irregularly in seminars with the Department of Pathology, Urology, Physiology and Pharmacology.

No full-time faculty are yet primarily stationed at the Loch Raven VA Hospital, but frequent contact is maintained to provide consultative care for renal patients there. Conferences are held on these patients and on special topics in nephrology several times each year. Although no hemodialysis facility is envisioned there, we anticipate the establishment of a full time Renal service at the VA in the future.

Postgraduate teaching programs have been provided to physician groups at Cumberland Memorial Hospital, York (Pennsylvania) Hospital, Mercy Hospital, South Baltimore General Hospital, George Washington University Hospital, and Walter Reed Army Medical Center. Specific training programs for paramedical personnel in organ procurement and hemodialysis have been carried on to sustain our programs at both the University of Maryland Hospital and the John L. Deaton Medical Center Dialysis Program.

We have participated in training programs for nurses and technicians on a regional basis through the South Eastern Organ Procurement Founda-

tion. Our continued participation in this organization for organ procurement, investigation, and sharing will be detailed under Service activities.

RESEARCH

As a newly established Division we have not received research grants and our only laboratory is used for organ preservation for transplantation. With the arrival of Doctor John Little, a distinguished physiologist who will direct our laboratory effort, we anticipate an acceleration in research programs when space and equipment are available. Our teaching effort and our service obligation have reduced sharply the time available for laboratory research considerations.

Investigative efforts have been focused for the past year on two principal areas: first, studies of mechanisms of acute renal failure. These have lead to a search for effective, prompt assays for myoglobin by Doctor Paul Light, Fellow, with the assistance of Doctor Ruley in Pediatrics, and proposals for specific protocols in collaboration with the Maryland Institute of Emergency Medicine. Secondly, investigation of organ viability prior to transplanation and studies of techniques of organ preservation in preparation for transplantation have been carried out. The definition and characterization of injury to organs in the course of preservation for transplantation has been carried on in collaboration with the Baltimore City Hospital Nephrology group, and the pathologists at both our institutions. This paper has been presented and is awaiting publication.

Detailed clinical investigation of specific syndromes and of particularly interesting cases has been carried out in a number of occasions, but not in the form of a coordinated research project.

SERVICE

Our in-patient clinical programs at University of Maryland have grown further in the past year. A coordinated program whereby a faculty member supervises all in-patient care has led to greater efficiency, more effective communications, and better patient care. The Renal Clinic has served for consultations with other clinics and long-term service to outpatients at University of Maryland Hospital. Private referrals from throughout Maryland and Southeastern Pennsylvania have increased.

In 1974-1975, we performed about 75 renal biopsies. With excellent cooperation from Doctor Ray Nagle in the Department of Pathology, the usefulness of this procedure has increased dramatically. Routine electron microscopy and immuno-

fluorescence microscopy augment light microscopic findings to provide better understanding of disease, more precise diagnosis, and prognosis.

Although the specified inpatient area for renal disease patients has not yet been developed, our in-patient services have increased significantly providing a clinical base for all our Nephrology programs.

The Nephrology Division has continued to direct the organ procurement program and organ preservation laboratory and to coordinate communications in arranging for kidney transplants. Despite reduction in staff to a single transplant surgeon, Doctor Fuad Dagher carried out 20 kidney transplants in 1974-1975. Forty-four kidneys were obtained by the University of Maryland team and shared with other Baltimore Transplant Institutions and member institutions of the South Eastern Organ Procurement Foundation, an organ sharing and information service group covering most of the Eastern U.S.

In the past year, Doctor Bryan and Doctor Yen at Maryland General Hospital have received faculty appointments and their affiliated program has continued to provide high quality services for both the evaluation of renal disease and its management including hemodialysis services. Transplant candidates from Maryland General Hospital are referred to University of Maryland Hospital for transplantation. Doctor Lewers, the originator of the Maryland General Hospital program, has left to return to the Eastern Shore. He is missed, but he has built a solid foundation for a strong future.

The affiliated hemodialysis unit which is directly operated by this faculty at the John L. Deaton Medical Center (an extended care facility) is convenient to the University of Maryland Hospital and is a stable chronic care facility for patients with renal failure. We have offered occasional convalescent in-patient care for hemodialysis patients in that facility. We have carried out home dialysis training for 17 patients in 1974-1975. That program has cared for over 115 patients since its inception in March 1973, 74 of whom are on that chronic program now, 41 of whom entered it 1974-1975. This facility, with its excellent and attractive physical plant, is the appropriate site for this kind of care. The overall facility offers flexibility of services, and the convenient access to University Hospital makes our backup care and supervision fit into the overall Nephrology program. Training for fellows and residents in hemodialysis and care of chronic renal failure and its complication is carried on there.

DIVISION OF NUCLEAR MEDICINE

FACULTY

- Malcolm Cooper, M.D.
Associate Professor of Medicine
Head, Division of Nuclear Medicine
- E. Ulric Buddemeyer, Sc.D.
Associate Professor of Medicine
- Michael D. Loberg, Ph.D.
Assistant Professor of Medicine
- Philip Bernstein, M.D.
Fellow
- James Ryan, M.D.
Fellow
- Elizabeth Harvey, M.S.
Instructor
- John Wiswell, M.D.
Faculty Associate
Division of Endocrinology
- James Quinlan, M.D.
Faculty Associate
Head, Nuclear Medicine, VA Hospital
- Pat Calley, Ph.D.
Faculty Associate
Department of Medicinal Chemistry (Pharmacy)

EDUCATION

The Nuclear Medical Science course is now an approved 8 credit, 2 semester course offered by the Schools of Pharmacy and Medicine and taught by the Faculty of the Division of Nuclear Medicine. The basic science part of the course was offered successfully in the Spring Semester of 1975. Thirty-two graduate students registered and 21 received credit for satisfactory completion of the course. The graduates taking the course include M.S. degree candidates in the School of Pharmacy and Residents in Radiology and Nuclear Medicine in the School of Medicine.

This didactic course and laboratory experience provides the basis of the 2 year Nuclear Medicine residency program. An A.M.A. site visit to consider approval of the Residency Program is expected during the current Academic year.

Junior and senior electives in clinical and investigative Nuclear Medicine are offered for medical students and residents. Didactic nuclear medicine lectures are given throughout the year to the medical students as part of the Subject-System program. Biweekly combined conferences are held on a regular basis with the Division of Endocrinology, the Baltimore Cancer Research Center, and Neuroradiology. Much teaching at graduate level is also performed by the Divisional faculty at other institutions, notably Georgetown University and Johns Hopkins Medical Institutions.

RESEARCH

The research program of the Division centers

around the strengths and interests of the Faculty, Fellows, and Associates from other disciplines working in collaboration.

Two important assets are peculiar to this University. The first is the School of Pharmacy through which a collaborative program in Radiochemistry and Radiopharmacy has been developed. The second is the University of Maryland Physics Department cyclotron at College Park which is a unique facility for the production of special new radionuclides such as Iodine-123.

Divisional research operates at three levels of activity. The first includes chemical and cellular studies, isotope production, and development of new radiopharmaceuticals. The majority of this work is carried out in the School of Pharmacy. The second involves animal work to study pharmacokinetics, tissue distribution, and safety studies. Much of this work is performed in the animal laboratory in the Bressler Building shared with the Division of Cardiology. Since Nuclear Medicine is a diagnostic modality, a major endpoint of its research is clinical utility, and this provides the third level of the research program conducted in the Division and with collaborators in the Medical and Dental Schools.

All members of the Division participate in research either as trainees, collaborators or investigators in their own right. This is exemplified by the fact that all the faculty members, Drs. Cooper, Quinlan, Loberg, Buddemeyer, and Miss E. Harvey; two of the fellows, Drs. Termini and Ryan; and chief technician, Mr. T. Sorandes; and another technician, Mr. Getka, presented research papers from the Division at the national meeting of the Society of Nuclear Medicine held in Philadelphia, 1975.

One successfully completed research study conducted for three years led to development of a rapid means of producing radioiodinated autologous fibrinogen. Practically all members of the Division contributed, but the work was a major effort of Drs. Cooper, Loberg, and Quinlan. The need for such a radiopharmaceutical arose from the potential hazard of transmitting serum hepatitis when fibrinogen was obtained from pooled sources. Within one to two hours of receiving the patient's blood, the Iodine-131 labeled, autologous fibrinogen can be reinjected into the patients. It has proven a clinical value in the early diagnosis of renal transplant rejection. In collaboration with Drs. Ollodart and Dagher from the Department of Surgery's Transplant Unit, clinical studies showing its efficacy have been completed. Rejection in the kidney is detected by observing an increased deposition of fibrinogen in

the transplanted kidney. Work with this radiopharmaceutical is continuing in collaboration with Dr. Iber, Gastroenterology, and his associates to study fibrinogen metabolism in liver disease.

A major research effort has been made to develop radiolabeled synthetic drug analogues, the subject of much interest and speculation since the work was first announced early in 1975. This has been the principle work of Dr. M. Loberg as a collaborative effort between the Division and the School of Pharmacy, including Dr. P. Callery in Medicinal Chemistry.

Much is known about many drugs, how they act and where they localize in the body. Investigators have sought ways of utilizing this information by making drugs into radiopharmaceuticals and using them in the diagnosis of disease. In this project a new method has been devised which from preliminary data appears successful. Chelates which bind metal ions have been incorporated into drug molecules to create synthetic analogs of the drugs. The metal ions used are specially chosen radiosotopes which allow the distribution of the radiopharmaceutical in the body to be recorded as an image, thus visualizing the target organ and observing its function. The drugs chosen are those known to accumulate in the heart and certain forms of cancer. Successful completion of this work will be of value in the diagnosis of heart disease and cancer.

The first success from this effort has been the development of a new gallbladder imaging agent, Tc - 99m - N[N' - (2,6-dimethylphenyl) carbamoylmethyl] iminodiacetic acid. The preliminary animal work showing its efficacy has been completed by Miss E. Harvey. Approval for its use has been obtained and clinical studies are now under way in collaboration with Dr. Iber and his associates.

There is a strong research interest in the Division in the application of radiotracer techniques in cardiology. For the past two years, work has been in progress to develop new radiopharmaceuticals for myocardial imaging. As a collaborative effort with Dr. L. Scherlis, Dr. B. Termini has been investigating the role of the currently available potassium-43 chloride. Working with Dr. J. McLaughlin in Cardiothoracic Surgery, this work has resulted in several presentations and publications concerning myocardial imaging in patients receiving saphenous vein bypass grafts for coronary heart disease.

Dr. E.U. Buddemeyer, who joined the faculty in the past year, provided additional research strength with his invention of a new method of in

vitro radiometric analysis. This work, which he began at the Johns Hopkins U., is progressing rapidly and provides a means of detecting and quantifying cellular metabolism. Collaborative efforts studying leukocyte and lymphocytic function, bacterial metabolism and identification, and enzyme syntheses are underway.

The work on Radiolabelled Drug Analogs was submitted as an unsolicited grant proposal to N.H.L.I., approved and budgeted. Funding is anticipated in the current academic year. This innovative work was developed by Dr. Michael Loberg and over the next few years should represent a major contribution in the field of Nuclear Medicine.

New lines of research are being developed as this young team, all recruited within the past 18 months to 2 years, gain confidence and expertise. There is an abundance of talent, ideas and enthusiasm within the group which includes students, technologists and junior and senior faculty from the Schools of Medicine, Pharmacy, and Dentistry.

The Division of Nuclear Medicine has no specially assigned research space. The work has been performed with the assistance of investigators who willingly provided lab space and equipment, principally in the School of Pharmacy, Department of Medicinal Chemistry. Animal work and clinical research have been performed in the service area beginning in the late evening when patient studies have been completed.

PUBLICATIONS

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14. E.U. Buddemeyer: Liquid scintillation vial for cumulative and continuous radiometric measurement of in vitro metabolism. Applied Micro., 28:177-180, 1974.
15. E.U. Buddemeyer: Principles for Cardiovascular Nuclear Medicine—Chapter 1. 'Instrumentation'. Cardiovascular Nuclear Medicine Edited by H.W. Strauss, B. Pitt, A. James. Mosby, 1974.
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SERVICE

A total of 10,280 procedures were performed representing a 35% increase over the 1973-4 total.

Since 1973 the in vitro and non-imaging studies have remained fairly stable and the increase can be attributed to imaging procedures. The most frequently performed studies remain the brain scan and liver scan, whereas the studies which are increasing rapidly are the bone scan and whole body Gallium-67 scan, both of which are used for cancer detection, metastatic surveys, and as a means of determining therapeutic response. About half of the Division's procedures are performed on an out-patient basis. The factors accounting for the increased service workload similar to those operating during 1974—

- relocation of BCRC (March 1974)
- expansion of Hospital bed status
- introduction of new radiopharmaceuticals by the Division of Nuclear Medicine
- education of other Clinical Services to the utility and clinical value of Nuclear Medicine procedures

This increase in workload is a laudable commentary on the industry of the technical staff of the Division. It has been achieved without increase in numbers of personnel or instruments available for imaging studies. No new equipment has been provided by the Hospital during the year and the technicians continue to operate in an area which awaits renovation to make the unit adequate for proper patient care.

Facilities and equipment must improve in order to maintain standards and cope with the increased demand for services. New imaging and analysis instruments expected in the lab during 1976 will help alleviate the difficulties. Completion of renovations of space for the Division of Nuclear Medicine by mid 1977 and implementation of an effective cost center concept should help the Division in achieving its aims and responsibilities.

DIVISION OF PULMONARY DISEASES

FACULTY

David G. Simpson, M.D.
Associate Professor of Medicine
Head, Division of Pulmonary Diseases

Thomas E. Hobbins, M.D.
Assistant Professor of Medicine

H. David Kerr, M.D.
Associate Professor of Medicine

Charles B. Payne, Jr., M.D.
Assistant Professor of Medicine

Alice Garcia-Hamoy, M.D.
Fellow

William Randall, MD.D.
Fellow

Rejep Erol, M.D.
Fellow

EDUCATION

Undergraduate and graduate teaching was conducted at the Western District Health Department Chest Clinic, Loch Raven Veterans Administration Hospital, and the University of Maryland Hospital. Both private patients and outpatients are used in teaching sessions for students and residents; the major thrust of this effort is to provide familiarity with the more common pulmonary diseases, namely, tuberculosis, sarcoidosis, lung cancer, asthma, bronchitis, and emphysema. The elective rotation of senior students to the outpatient clinic during their ambulatory care program has continued as a successful and rewarding learning experience. It is unfortunate that, because of space limitations, the number of students may not exceed four. With each rotation the clinic could have three or four times this number who can be accommodated. Other senior students and residents who elect to spend time in the Division must be accommodated and space is always a problem. The fellows and ex-fellows contribute much to the value of the clinic as a learning resource.

The combined medical-surgical weekly conference at the Loch Raven VA Hospital offers a rich source of clinical material and appropriate discussions are undertaken for students and house officers there and for the fellows of the Division. This conference should be even more productive during the coming year with one fellow rotating to the VA Hospital. This fellow will be available for ward consultation and teaching and he will play a major role in arranging the conference.

The faculty of the Division also participated in the Introduction to Clinical Medicine in the freshman year and in the teaching of Subject Systems to the sophomore medical students. Stu-

dents in the freshman year also had the elective opportunity in Physiology to work in the Pulmonary Function Laboratory under Dr. Kerr where they received in-depth instruction in applied physiology in health and disease. Members of the Division also participated in courses in the School of Pharmacy and to freshman class and nurse-practitioners of the School of Nursing.

RESEARCH

Dr. Hobbins participates in a collaborative study with Dr. Richard Riley and Dr. Gardner Middlebrook to investigate the effectiveness of ultraviolet radiation in the inactivation of aerosolized influenza virus. This study was supported by Dr. Riley's grant from the Environmental Protection Agency. The inactivation of influenza virus by ultraviolet radiation was demonstrated; approximately 80% of aerosolized infectious particles was destroyed. The dose required was comparable to the dose of radiation used to inactivate airborne tubercule bacilli in a hospital ward. Ultraviolet lighting, therefore, can be used to prevent transmission of aerosolized respiratory agents present in small particles. Furthermore, the technique may be used to reduce the transmission of viral agents in meeting places such as waiting rooms, classrooms, movie houses, etc.

In collaboration with members of the Department of Environmental Medicine, Johns Hopkins School of Hygiene and Public Health, the following studies are currently underway or are planned for the near future: 1) The effects of nitrogen dioxide on the respiratory function of normal human subjects and patients with chronic bronchitis, emphysema, and asthma. 2) A study of adaptation to ozone has begun and preliminary results indicate that non-smokers lose their sensitivity to the adverse effect of ozone upon respiratory function by the third day of exposure. 3) A study of the combined effect of sulphur dioxide and particulate air pollutants will begin soon. 4) A study of the effect of ozone on aberrations in the chromosomes in human blood is being conducted at the School of Hygiene, Johns Hopkins University. 5) An evaluation of a Micronair Electrostatic Precipitator for removal of particulates, smoke, organic dusts, pollens, viable and nonviable bacteria, and spores has been undertaken under a contract with Dome Laboratories. 6) An evaluation of currently used techniques for the measurement of static lung volumes of patients being supported on mechanical ventilators for which no simple method exists is planned.

Support for three fellows was obtained from the Maryland State Department of Health (\$15,000) and from the American Lung Association of Maryland (\$18,000).

PUBLICATIONS

H.D. Kerr, T.J. Kulle, M.L. McIlhany, P. Swidersky: Effects of ozone on pulmonary function in normal subjects. *Am. Rev. Respir. Dis.*, 111:763-773, 1975.

SERVICE

A complete pulmonary consultative service for patients at University of Maryland Hospital is provided by the fellows and supervised by the faculty. In addition members of the Division assume responsibility for the care of approximately 2,000 patients coming to the City Health Department Clinic each year. Contributions also are made to the Baltimore County Clinics and Dr. Simpson conducts a monthly clinic in St. Mary's County. Dr. Hobbins directed the Medical Intensive Care Unit and the Respiratory Therapy Division. Dr. Payne assumed responsibility for fiberoptic bronchoscopy, the outpatient clinic run by nurse-

practitioners at the Loch Raven VA Hospital, the pulmonary function laboratory and respiratory therapy unit at Mercy Hospital, and the pulmonary function laboratory at Provident Hospital.

Dr. Kerr supervised the pulmonary function at University of Maryland Hospital and introduced new diagnostic procedures. Among these were the measurement of "closing volumes" for the early detection of obstructive lung disease, the single breath nitrogen elimination rate for investigation of the distribution of alveolar ventilation, and the ventilatory response to carbon dioxide to detect central nervous system response to hypercarbia. During the year 484 inpatients and 252 outpatients were studied. Spirometric measurements were made on 730, measurements of lung volumes on 594, gas exchange on 170, and closing volumes and single breath nitrogen elimination rates on 260 patients.

Members of the Division served in responsible positions in local and state medical organizations. Dr. Payne was honored by his selection for the presentation of the Dr. Robert Brown Memorial Lecture at Meharry Medical College.

CURRENT COURSES, 1975-1976

November 20—Orthopaedic Day

This program is planned to present in detail an array of orthopaedic subjects which will be of common interest to orthopaedists and general practitioners alike.

December 4—Rape of Teenage Girls

December 5 & 6—The Physician & Alcoholism Treatment

January 17 & 18—Family Medicine Intensive Learning Weekend No. 1

February 12 & 14—Dermatology—A Postgraduate Seminar

February 20—Obstetrics Day

February 28—Traumatology

Further information may be obtained by contacting:

Program of Continuing Education • University of Maryland School of Medicine
29 South Green Street, Baltimore, Maryland 21201 1-301-528-7346

Dean's Message

John M. Dennis, M.D.



Medical school educational costs exceed those of other professional schools. These costs have been met in part by government subsidies which provide the difference between tuition and the actual costs, and in part by voluntary teaching services contributed by practicing physician teachers. Both of these contributions are diminishing. Subsidies from both the state and federal governments are not keeping pace with educational costs, and there are many less voluntary teaching physicians as academic institutions have developed larger full-time faculties. As these sources of support fail to provide adequate resources, the rising costs of medical education must be met by tuition increases and voluntary contributions.

Many of our federal legislators are convinced that much of the cost of medical education should come from tuition increases in view of the high earning capacity of the practicing physician. Instead of direct federal appropriations to medical schools, these legislators would increase federal student loan funds, thereby increasing student indebtedness through increased tuitions. This indebtedness would be repaid by government service which, in turn, would help with the geographical distribution and specialty problems.

With government conversations and regulations directed toward the control of health care costs, and specifically physician fees, the end of the relatively high incomes for physicians may be near. The state has not increased appropriations

to the School and has been reluctant to allow significant increases in tuition to the point where the School of Medicine can even keep up with inflation. With this lack of adequate financial support we are faced with a "belt-tightening" program. A task force will review the School of Medicine finances and programs and develop recommendations.

With the realization that state support is probably not going to increase sufficiently to keep up with the inflationary trend, the Board of Regents recently approved the development of an endowment foundation for each of the professional schools on the Baltimore Campus, to encourage voluntary giving on the part of alumni and friends. In making its decision for the development of multiple foundations, rather than continuing with a single University-wide one, the Board recognized the fact that the alumni of professional schools are from numerous undergraduate schools and have a special alliance to the professional school of which they are graduates rather than to the total University.

It is not intended that the new Medical School Foundation will operate in opposition to the Alumni Association, but that they will be complementary to each other. I hope the alumni and friends of the School of Medicine will support the new endowment foundation which will assist the School in carrying out its missions, and also the Alumni Association.



FRANCIS J. BORGES, M.D., F.A.C.P., 1925-1973, PROFESSOR OF MEDICINE, this conference room is dedicated with grateful homage to Francis J. Borges who taught the fundamental and practical principles of clinical medicine and through his unique example of dedication stressed that the patient's problems come first.

On Thursday, May 15, 1975 a conference room on the third floor of the new North wing of University of Maryland Hospital was dedicated to Francis J. Borges, M.D. This was made possible by contributions from his friends and from the Department of Medicine. In addition to a memorial room, the Francis J. Borges Memorial lectureship has been established. Philip Tumulty, M.D., gave the first memorial lecture on March 12, 1974.

PRESIDENT'S MESSAGE

William H. Mosberg, Jr., M.D.

The fiscal year 1975-76 is sandwiched between the Centennial year of the Medical Alumni Association and the Bicentennial celebration of the United States of America. The School of Medicine of the University of Maryland was founded in 1807; Davidge Hall was constructed in 1812; and the Medical Alumni Association was founded in 1875. The May 1975 issue of *The Bulletin* of the University of Maryland School of Medicine set forth the Centennial celebration program — specifically May 27 and 28 — of the Medical Alumni Association.

Enthusiastic plans are afoot for a Bicentennial celebration in 1976. In the normal course of events, 1976 would be a year in which the specialty societies (University of Maryland Medical Association, University of Maryland Surgical Society and the Bradley Pediatric Society) would hold their bi-annual meeting in May or June at time of the Medical Alumni Reunion. Instead, next year on December 6 and 7, 1976, a Bicentennial celebration program will be held including a combined meeting of the University of Maryland Hospital Surgical and Medical Associations and the Bradley Pediatric Society in conjunction with the Medical Alumni Association. In addition, the Bradley Pediatric Society will participate in conjunction with the Medical Alumni Association in June 1976. A Bicentennial Committee, chaired by Dr. Theodore E. Woodward, has been making plans for arranging the format of these once-in-a-lifetime activities. A brochure prepared by the Bicentennial Committee summarizing these functions will be distributed in the near future.

Although the Medical Alumni Association is participating in the December 1976 Bicentennial activities — and certainly fully supportive of them — it was the decision of the Medical Alumni Association that our 1976 Annual Alumni Reunion should be held in conjunction with the Medical School graduation and commencement exercises. Accordingly, the Annual Banquet of the Medical Alumni Association will be held on June 2, 1976 at the Hunt Valley Inn. On the following day, June 3, the Business Meeting and Scientific Program will

be held at Davidge Hall, followed by a luncheon. During the past two years, your Medical Alumni Association has sponsored an Alumni Reception at Davidge Hall on the evening preceding the Annual Banquet. This has proved to be a most enjoyable evening attended by many alumni, some before or after individual class reunion functions. This year the Alumni Reception will be on the evening of June 3, 1976, the evening following the Annual Banquet.

Above and beyond acting as a repository of information and a sponsor of class reunions, your Medical Alumni Association is constantly striving to serve better the School of Medicine and its students, faculty and alumni. Through the years your Board of Directors has effected administrative and organizational changes in a continuing attempt to serve better its membership. Such an effort has been initiated during the past year and an Ad-hoc Advisory Committee, under the chairmanship of Dr. William J. R. Dunseath, a past President of this organization, has done a great deal of work along these lines. It is estimated that there are 5,000 living alumni of the School of Medicine; 24% of these are in the City of Baltimore, 20% elsewhere in Maryland, and 56% outside of Maryland. At the end of the fiscal year (i.e. June 30, 1975) there were 1997 dues-paying members. This represents approximately 40% of the estimated living alumni. Having marshalled these figures, Dr. Dunseath and his committee took cognizance of the fact that up to the present, by virtue of geographic proximity, those handling activities of the Medical Alumni Association have been drawn largely from the 24% in the City of Baltimore and, to some extent also, from the 20% elsewhere in Maryland. Simple arithmetic dictates that the remaining 56% — the majority of living alumni — represents an untapped resource. It is the purpose of the Ad-hoc Advisory Committee, chaired by Dr. Dunseath, to propose and implement a mechanism for utilizing this large and untapped resource. We hope you will find it feasible, if approached by a representative of this committee, to assist the committee in its activities.

Dr. James G. Arnold, Jr. Retires



Fig. 2. Left to right. Dr. John O. Sharrett, Mrs. Jorge Ordonez, Dr. William H. Mosberg, Jr., (standing), Mrs. William McKinney, Dr. James G. Arnold, Jr., Mrs. William H. Mosberg, Jr., Dr. William McKinney, Dr. Raymond K. Thompson, Mrs. John O. Sharrett.

On June 21, 1975, The Division of Neurological surgery sponsored a Testimonial Dinner for Dr. James G. Arnold Jr., M.D., in recognition of his twenty-two years as Professor of Neurological Surgery and Chairman of the Division. (Fig. 1) Arrangements for the affair, which was a complete surprise to the honored guest, were begun over a year ago by Dr. Paul D. Meyer, one of Dr. Arnold's Associates as well as one of his former residents; and, it is a tribute to the thirty-seven neurosurgeons who attended that the secret was so closely guarded for so long a time.

In addition to this impressive array of neurosurgical talent—more than exists in most countries in the world today—Dr. Arnold's entire family had travelled to Baltimore unbeknownst to him and, to his amazement, all of them were present at the Elkridge Club when he arrived. His son Jimmie, his brother Richard, and his sisters Carolyn, Mary, and Martha, were present—each complete with spouse. Also present and enjoying the festivities were Dr. Arnold's aunt, Mrs. Annie Skinner, and the long-standing housekeeper and adjutant of the Arnold family, Mrs. Martha Halestork.

In addition to providing an opportunity to pay a much deserved and enthusiastically tendered tribute to Dr. Arnold, the evening was one of delightful and nostalgic reunions. Former residents came from far and wide to be part of the evening. The longest journeys were made by Rui Carvalho and Iradj Khalatbary, who travelled from Sao Paulo, Brazil and Tehran, Iran respectively. Others having come from afar included Roberto Negrón from San Juan, Puerto Rico, Louis Manganiello and Pomeroy Nichols from Augusta, Georgia, Herbert Bell from Cleveland, Ohio, Donald Sickler from Dayton, Ohio, Daniel White from Norfolk, Virginia, William Kraut from Wilmington, Delaware, and Ivan Butler and Ronald Paul from York, Pennsylvania.

Dr. Arnold's predecessor, Dr. Charles E. Bagley, Jr., was the first Professor of Neurological Surgery and Chairman of that Division at the University of Maryland. It was under Bagley that Dr. Arnold obtained his training in neurological surgery, and the same was true of some of the more senior neurosurgeons present including William McKinney, Raymond K. Thompson, William H. Mosberg, Jr., Louis Manganiello, Robert M.N. Crosby, and Pomeroy Nichols.

Since the period of neurosurgical service to the University of Maryland Hospital by those present spanned nearly forty years, some of the neurosurgeons present were literally old enough to be the father (yea, even a father with senescent fertility) of many of the younger and more recent

neurosurgical residents. Only three or four of those present—because of chronological age and geography—were acquainted with everyone in the room. Of these, Dr. William H. Mosberg, Jr., one of Dr. Arnold's associates and a former resident under Dr. Bagley, acted as Toastmaster, and rather than introducing merely the "head table", he interspersed throughout the evening an introduction of everyone in attendance. (Fig. 2) The introductions were coupled with sometimes poignant, more often humorous anecdotes characterizing different eras in the growth and development of the Division.

A delicious dinner was preceded by a prayer by Dr. Arnold's son, a clergyman, and followed by an interesting though all-too-brief program. Dr. William McKinney, the Neurosurgical Resident at the University of Maryland Hospital immediately prior to Dr. Arnold, gave an interesting and entertaining description of neurosurgery at our hospital in the 1930's. Some of the difficulties, limitations, and hindrances—all too vividly remembered by the older neurosurgeons present—may have seemed unbelievable to some of the younger men. Following this, Dr. Raymond K. Thompson, one of Dr. Arnold's associates and the Neurosurgical Resident immediately following Dr. Arnold, gave a detailed and informative summary of the progress and development of the Division of Neurological Surgery during the past twenty-three years under the stewardship of Dr. Arnold. The impressive content and inspiring delivery of Dr. Thompson's address brought the audience to its feet in a standing ovation for the honored guest.

A moment of silent prayer was offered for the three former neurosurgical residents who have died since Dr. Arnold has been Chairman of the Division. Dr. E. Thornton Pfeil of Tucson, Arizona died of Leukemia, Dr. George W. Smith of Augusta, Georgia was killed in a plane crash, and Dr. August Kiel of Baltimore died of a Glioma involving his brain stem. All except two of the remaining neurosurgeons are engaged in active practice at this time. Of the remaining two, Dr. James Browne, after a few years of academic neurosurgery, completed a Residency in Psychiatry and is now practicing that specialty. Dr. Fred Cressman decided during his year as Senior Neurosurgical Resident that his ultimate career would be in Neuropathology. At the present time, he is engaged in that specialty here in Baltimore.

The formal program ended with the presentation to Dr. Arnold by Dr. Paul Meyer of a "Jake Plate," a beautiful silver plate similar to those presented by Dr. Arnold to his residents. The plate was inscribed with the names of residents trained by Dr. Arnold.



Fig. 3. Left to right. Dr. John O. Sharrett, Mrs. Jorge Ordonez, Dr. William H. Mosberg, Jr., Mrs. William McKinney, Dr. James G. Arnold, Jr., Mrs. William H. Mosberg, Jr.



Fig. 4. Left to right. Top Row: Drs: Donald Sickler, David Cook, Ronald Paul, Fred Cressman, Jorge Ordonez, Daniel White, Octavio Polanco, Roberto Negron, Robert Hennessy, Herbert Bell, Israel Weiner, Edward Layne, Fred Sugar, Charles Lancellotta, Ivan Butler, William Kraut, Iradj Khalatbary, and Charles Henderson. Middle Row: Drs: Rui Carvallho, Robert Crosby, Paul Hudson, John Sharrett, Raymond Thompson, William McKinney, James Arnold, Louis Manganiello, Pomeroy Nichols, William Mosberg, and Paul Meyer. Bottom Row: Drs: Joseph Soliman, James Abbott, Richard Pratt, Pete Satyras, Gustavo Roca, Walker Robinson, Abdul Itani, Merle Stringer, and Joseph Jamaris.

MEDICAL ALUMNI ASSOCIATION REUNION
June 2 and 3, 1976
SCHEDULE

Wednesday, June 2, 1976

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|-----------|---|
| 7:00 p.m. | Alumni Reception
Hunt Valley Inn
Shawan Road and Rt. I-83 |
| 8:00 p.m. | Annual Alumni Banquet

Followed by dancing until
1:00 a.m. |

Thursday, June 3, 1976

- | | |
|-----------------|--|
| 9:00 a.m. | Registration
Davidge Hall |
| 10:00 a.m. | Annual Alumni Business Meeting
Scientific Program (details later)
Davidge Hall |
| 12:30 p.m. | Alumni Luncheon
Circle One Restaurant
Holiday Inn |
| 6:00-11:00 p.m. | Alumni Cocktail Reception
Davidge Hall |

Friday, June 4, 1976

- | | |
|-------------------------------------|---|
| (Time and place to be
announced) | Precommencement Exercises

Commencement Exercises |
|-------------------------------------|---|

Classes celebrating Five-Year Reunions:
1926 (Fifty-Year Graduates), 1931, 1936, 1941, 1946, 1951,
1956, 1961, 1966, 1971

Note: The above dates are correct. The Annual Banquet will be held on Wednesday and the Annual Business Meeting and Reception will be held the following day.

ALUMNI CHATTER

Navy Medical Corps *Lieutenant Commander Allan M. Salzberg*, '73, Gulf Breeze, Florida, is currently enrolled in the Naval Flight Surgeon Program at the Naval Aerospace Medical Institute, Pensacola, Fla. Dr. Salzberg is the son of Mr. and Mrs. Emanuel Salzberg, Hewlett, NY.

The Naval Flight Surgeon is a unique mixture of physician, flier, scientist and naval officer. The six month training program includes 20 weeks of academic instruction followed by six weeks of flight training. Upon graduation, Dr. Salzberg can expect to be assigned to an operational aviation unit of the Navy or Marine Corps.

Dr. and Mrs. Salzberg, the former Carol Wachtel of New Rochelle, NY, reside in Gulf Breeze, Fla.

...

William F. Harper, '71, Thurmont, Md., began practicing Family Medicine in a joint practice with Dr. Steven Pickert in Thurmont in July. Dr. Harper served his internship at the Washington Hospital Center in Washington, D.C., and his residency in Family Practice at the Franklin Square Hospital in Baltimore.

...

Thomas R. Silverman, '71, Hershey, Pa., began his residency in Pediatrics in July, 1975 at the Milton S. Hershey Medical Center of the Pennsylvania State University.

...

Aldis Baltins, '70, Ukiah, Calif., practices Orthopaedic Surgery in Ukiah. Dr. Baltins completed his internship at the U. S. Public Health Service Hospital in Baltimore after his graduation from University of Maryland School of Medicine.

...

James O. Ballard, III, '69, Hershey, Pa., began his residency in Medicine in July, 1975 at the Milton S. Hershey Medical Center of the Pennsylvania State University.

...

Ronald M. Legum, '68, Lancaster, Pa., is Chief of the Department of Cardiology at the St. Joseph's Hospital in Lancaster, effective June, 1975.

Walter Braunohler, '66, Grand Rapids, Mich., became a Fellow of the American Academy of Orthopaedic Surgeons in February, 1975. Dr. Braunohler began his practice in Hand and Reconstructive Orthopaedic Surgery in Michigan in July, 1974. He is a Consultant to the U. S. Army Aeromedical Research Lab on Musculoskeletal Effects of Vibration.

...

Chris P. Tountas, '63, Baltimore, Md., was elected Associate Member of the American Society for Surgery of the Hand at its 1975 annual meeting in San Francisco and presented a paper on "Tourniquet Ischemia Ultrastructural and Histochemical Observations of Ischemic Human Muscle and of Monkey Muscle and Nerve."

...

Stanley L. Minken, '63, Baltimore, Md., has been appointed chairman of the department of surgery at St. Agnes Hospital, effective July 1. Sister Alberta, D.C., administrator and president of the board of trustees, made the announcement.

Dr. Minken, a specialist in cardio-vascular surgery, replaces Alfred S. Garrison, M.D., who had announced his resignation as of June 30.

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Prior to assuming the chairmanship, Dr. Minken had served as the department's associate chairman and as its director of surgical education. Dr. Minken held this dual position for the past three years.

A native of Baltimore, Dr. Minken holds a B.S. degree in microbiology from the University of Maryland and a M.S. degree in medical biology and immunology from The George Washington University in Washington, D.C. Dr. Minken received his M. D. at the University of Maryland School of Medicine in 1963.

Upon graduation, Dr. Minken received his surgical training in general, thoracic and cardiovascular surgery at the University of Rochester. During this period, he also spent one year as a National Institute of Health research Fellow in surgery and received the Upjohn Medal for meritorious surgical research. Following his residency, Dr. Minken entered the United States Air Force and served in Vietnam.

Dr. Minken is a Fellow of the American College of Surgeons, the American College of Angiology and numerous other medical societies. He is a Diplomate of the American Board of Surgery. Dr. Minken locally holds memberships in the Medical and Chirurgical Faculty of Maryland and the Baltimore County Medical Society.

At the present time, Dr. Minken is an assistant professor of surgery at the University of Maryland School of Medicine and is a consultant to the surgical outpatient services at the Johns Hopkins School of Medicine.

Dr. Minken and his wife reside in Owings Mills with their four children.

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Michael L. Levin, '63, Baltimore, Md., was presented the "Man of the Year" award by the American Physicians Fellowship in July, at their national meeting in Atlantic City, N.J. Head of the Division of Infectious Diseases, at Sinai Hospital in Baltimore, Dr. Levin is in private practice of Internal Medicine and is the President of the Maryland Chapter of the American Physicians Fellowship and a member of the national board of trustees. Dr. Levin graduated from Johns Hopkins University and the University of Maryland School of Medicine. He is a lecturer at the University of Maryland School of Medicine and a Consultant to the Maryland State Department of Health and Mental Hygiene and Chairman of the Inter-hospital Infectious Disease Rounds. He is a Diplomate of the National Board of Medical Examiners and American Board of Internal Medicine and a

Fellow of the American College of Physicians, The American College of Chest Physicians and the American Federation of Clinical Research.

• • •

Maurice M. Davidson, '61, Baltimore, Md., is a graduate of the Baltimore City College and the Johns Hopkins University. He graduated from the University of Maryland School of Medicine in 1961. While at Johns Hopkins University, he collaborated with Professor Clifford T. Morgan, Department of Psychology, on a text written by Dr. Morgan.

Dr. Davidson is a member of the Phi Delta Epsilon National Medical Fraternity, Delta Epsilon Chapter, University of Maryland.

Dr. Davidson did post graduate studies in Pathology and Neurology. He interned at Jackson Memorial Hospital in Miami, Florida for one year. He completed his seven-year residency in neurosurgery at the New England Medical Center and also at Tufts Medical Center, both in Boston, Mass.

Dr. Davidson served in Vietnam for one year as a neurosurgeon in the U.S. Army as a Major. He thereafter completed his second year in the U.S. Army, as a neurosurgeon, in Valley Forge, Pa. Army Hospital.

Dr. Davidson is now in private practice in Neurosurgery in Chester, Pa. and in Philadelphia.

Dr. Davidson's wife, Phyllis, and their four children accompanied him to Israel this summer while he taught and operated at the Hadassah-Hebrew University Medical Center in Jerusalem.

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Jerome Ross, '60, Baltimore, Md., became a Fellow of the American College of Surgeons and has been named Chief of the Section of Ophthalmology at Bon Secours Hospital. Dr. Ross is associated with John Creamer, M.D. and Richard M. Susel, M.D.

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Albert F. Heck, '58, Baltimore, Md., became President of the Baltimore Neurological Society in September, 1975.

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Bernard N. Bathon, '57, Hanover, Pa., was certified by the American Board of Cardiovascular Disease in February, 1975.

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Arthur Baitch, '54, Baltimore, Md., was elected President of the Maryland Orthopedic Society.

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Col. William H. H. Shea, USAF, MC, '51, has been reassigned from Patrick A.F.B., Florida, where he served as Hospital Commander, to Robins A.F.B., Ga., where his new position is Command Surgeon, Hq., AFRES.

• • •

Katherine V. Kemp, '48, Baltimore, Md., completed a three year residency in Psychiatry at University of Maryland and opened her offices in Baltimore and Columbia, Maryland for the Practice of General Psychiatry in June, 1975. "Katie" took a rotating internship and assistant residency in Medicine following graduation. She then "soloed" in General Practice in Baltimore for fifteen years. This was followed by a residency in Physical Medicine and Rehabilitation at the University of Maryland and a five year faculty appointment at the University of Maryland School of Medicine. She resigned to take her Psychiatry residency. She is now board certified in these two specialties. She married Willis D. Witter, Jr., in her junior year in medical school and is the mother of four children.

• • •

William I. Wolff, '40 New York N.Y., was a member of the Program Committee and Chairman of the Session on Endoscopy at the American Cancer Society National Cancer Institute's *National Conference on Advances in Cancer Management* held in Denver, Colorado, in May, 1975. Dr. Wolff is Professor of Surgery at the Mt. Sinai School of Medicine.

• • •

John Z. Bowers, '38, New York, N.Y., received the Legion of Honor of France, at the rank of Chevalier, in July, in recognition of his contributions to international medical education, particularly in France, and of his broad studies in the history of medicine, notably that of Japan and China.

The decoration was presented by Dr. Robert Debre, eminent French medical scientist, educator, and statesman, at a ceremony held on June 25, 1975 at the International Children's Center in Paris. Among the distinguished guests were the Honorable Georges Picot, French Ambassador to the United Nations, and John Michael Coogan, Attache for Scientific Affairs of the American Embassy in Paris.

Dr. Bowers received the B.S. degree from Gettysburg College in 1933 and the M.D. from the University of Maryland in 1938. He also received the D.Sc. (Honorary) from Gettysburg College in 1958 and from the University of Maryland in 1959. Dr. Bowers is president of the Josiah Macy, Jr. Foundation in New York City.

The Legion of Honor, an order of knights headed by a Grand Minister who is the President of France, was created by Napoleon in 1802 to recognize distinguished civil and military service.

• • •

Col. Donald J. Silberman, '38, Birmingham, Ala., retired from the U.S. Army Reserve, Medical Corps, after thirty-four years of honorable and faithful service and was awarded the Meritorious Service Medal in June, 1975. Col. Silberman also received a Certificate of Appreciation from the Chief of the Army Reserve.

• • •

I. Phillips Frohman, '37, Washington, D.C., has been certified as a Diplomate of the American Board of Family Practice.

• • •

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FACULTY NEWS

New Appointments, Promotions, and Resignations

Lloyd Guth, M.D., Professor and Chairman—
ANATOMY (appointment effective 7-1-75)

Theodore E. Eisenstat, M.D., Assistant Professor—
SURGERY (appointment effective 7-1-75)

Patricia Carol Dischinger, PH.D., Assistant
Professor—SOCIAL & PREVENTIVE MEDICINE
(promotion effective 7-1-75)

Barry Mark Heatfield, Ph.D., Instructor—
PATHOLOGY (promotion effective 7-1-75)

Karl F. Mech, Jr., M.D., Instructor—SURGERY (ap-
pointment effective 7-1-75)

Juan M. Pardo, M.D., Instructor—SURGERY (ap-
pointment effective 7-1-75)

Richard Schreder, M.S.W., Assistant Professor—
PSYCHIATRY (promotion effective 7-1-75)

Joseph A. Soliman, M.D., Instructor—SURGERY (ap-
pointment effective 7-1-75)

Allen D. Schwartz, M.D., Associate Professor—
PEDIATRICS (appointment effective 7-1-75)

Louis A. Shpritz, M.D., Instructor—SURGERY (ap-
pointment effective 7-1-75)

Dwight E. Cramer, M.D., Assistant Professor—
SURGERY (appointment effective 7-1-75)

Arturo Q. Santos, M.D., Assistant Professor—
PEDIATRICS (promotion effective 7-1-75)

Barry J. Schlossberg, M.D., Assistant Professor—
MEDICINE (promotion effective 7-1-75)

Isadore G. Ances, M.D., Professor — OBSTETRICS/
GYNECOLOGY (promotion effective 7-1-75)

George U. Balis, M.D., Professor—PSYCHIATRY
(promotion effective 7-1-75)

Fuad J. Dagher, M.D., Professor—SURGERY (promo-
tion effective 7-1-75)

Aristide Y. Apostolides, Ph.D., Associate Professor—
SOCIAL & PREVENTIVE MEDICINE (promotion effec-
tive 7-1-75)

R. Ben Dawson, M.D., Associate Professor—
PATHOLOGY (promotion effective 7-1-75)

Paul Fiset, M.D., Ph.D., Professor—MICRO-
BIOLOGY (promotion effective 7-1-75)

Ronald L. Gutberlet, M.D., Associate Professor—
PEDIATRICS (promotion effective 7-1-75)

R. W. I. Kessel, Ph.D., Professor—MICROBIOLOGY
(promotion effective 7-1-75)

Mary E. Kirtley, Ph.D., Professor—BIOCHEMISTRY
(promotion effective 7-1-75)

George A. Lentz, Jr., M.D., Professor—
PEDIATRICS (promotion effective 7-1-75)

Andrew G. Smith, Ph.D., Professor—
PATHOLOGY (promotion effective 7-1-75)

Umberto VillaSanta, M.D., Professor—OBSTET-
RICS/GYNECOLOGY (promotion effective 7-1-75)

Barry P. Rosen, Ph.D., Associate Professor—
BIOCHEMISTRY (promotion effective 7-1-75)

Judy May Strum, Ph.D., Assistant—ANATOMY (ap-
pointment effective 7-1-75)

John D. Gearhart, Ph.D., Assistant Professor—
ANATOMY (appointment effective 8-1-75)

Sylvia Z. Lisansky, M.S.W., Clinical Instructor—
PSYCHIATRY (appointment effective 7-1-75)

Susan Schindler, B.S., Research Associate—
PEDIATRICS (appointment effective 6-1-75)

Mouta S. Dilaimy, M.D., Assistant Professor—
MEDICINE (appointment effective 7-1-75)

Evan Charney, M.D., Clinical Professor—
PEDIATRICS (appointment effective 7-1-75)

Bimal K. Pal, M.D., Assistant Professor—
PEDIATRICS (promotion effective 7-1-75)

Harold E. Ramsey, M.D., Instructor—SURGERY (appointment effective 7-1-75)

Joseph D. Notarengelo, M.D., Assistant Professor—MEDICINE (appointment effective 7-1-75)

Laurice L. McAfee, M.D., Clinical Assistant Professor—PSYCHIATRY (appointment effective 7-1-75)

Hans Koetter, M.D., Assistant Professor—FAMILY MEDICINE, resigned 6-26-75

Kulwant Ahluwalia, MRCS, Instructor—PEDIATRICS, resigned 6-30-75.

James L. Frost, M.D., Assistant Professor—PATHOLOGY, resigned 7-1-75

Harlan Firminger, M.D., Professor—PATHOLOGY, resigned 6-30-75

Ruth Backus Hoppe, M.D., Instructor—MEDICINE, resigned 6-30-75.

Meyer R. Heyman, M.D., Associate—MEDICINE, resigned 6-30-75.

Yung M. Lee, M.D., Instructor—ANESTHESIOLOGY, resigned 6-30-75.

Florette T. Lee, M.D., Instructor—ANESTHESIOLOGY, resigned 6-30-75.

Ira Wexler, M.D., Instructor—NEUROLOGY, resigned 6-30-75.

Miriam Sandbank, M.D., Clinical Associate Professor—PATHOLOGY, resigned 8-10-75.

Uriel Sandbank, M.D., Visiting Professor—PATHOLOGY, resigned 7-11-75.

Brigita Krompholz, M.D., Instructor—ANATOMY (Returning from leave of absence, Effective 5-26-75).

Teresita S. Beltran, M.D., Associate—PEDIATRICS (appointment effective 7-1-75)

Willem G.A. Bosma, M.D., Associate Professor—PSYCHIATRY (promotion effective 7-1-75)

Thomas G. Brennan, M.D., Instructor—

RADIOLOGY (appointment effective 7-1-75)

Paul L. Canner, Ph.D., Professor—SOCIAL & PREVENTIVE MEDICINE (promotion effective 7-1-75)

Russell L. Christopher, Jr., M.D., Instructor—PSYCHIATRY (appointment effective 7-1-74)

Miriam L. Cohen, M.D., Assistant Professor—MEDICINE (promotion effective 7-1-75)

George Andrew Crawford, M.D., Instructor—RADIOLOGY (appointment effective 7-1-75)

Stephen S. Dashef, M.D., Clinical Assistant Professor—PSYCHIATRY (appointment effective 7-1-75)

Nancy H. Doub, PH.D., Assistant Professor—SOCIAL & PREVENTIVE MEDICINE (promotion effective 7-1-75)

Andrzej Dworczyński, Research Associate—MEDICINE (appointment effective 7-26-75)

Marianne E. Felice, M.D., Instructor—PEDIATRICS (appointment effective 7-1-75)

Elie K. Fraiji, M.D., Associate—SURGERY (appointment effective 7-1-75)

Sylvan Frieman, M.D., Instructor—OBSTETRICS/GYNECOLOGY (appointment effective 7-1-75)

Gerald T. Gilmore, M.D., Assistant Professor—RADIOLOGY (promotion effective 7-1-75)

Howard T. Go, Dr. Eng., Associate Professor—SOCIAL & PREVENTIVE MEDICINE (promotion effective 7-1-75)

Stanford M. Goldman, M.D., Clinical Assistant Professor—RADIOLOGY (appointment effective 7-1-75)

Robert Sirkosky Gordon, Jr., M.D., Visiting Professor—SOCIAL & PREVENTIVE MEDICINE (appointment effective 9-1-75)

Sheila Hafter Gray, M.D., Associate Clinical Professor—PSYCHIATRY (promotion effective 7-1-75)

Maria Gumbinas, M.D., Assistant Professor—
PEDIATRICS (appointment effective 7-1-75)

Bruce P. M. Hamilton, M.B.Ch.B., Associate
Professor—MEDICINE (promotion effective
7-1-75)

Gerald A. Hofkin, M.D., Assistant Professor—
MEDICINE (promotion effective 7-1-75)

Yih-Min B. Huang, Ph.D., Assistant Professor—
SOCIAL AND PREVENTIVE MEDICINE (promotion
effective 7-1-75)

Alice Isen, Ph.D. Assistant Professor—
PSYCHIATRY (appointment effective 7-1-75)

Michael Barry Isikoff, M.D., Instructor—
RADIOLOGY (appointment effective 7-1-75)

Leeds E. Katzen, M.D., Clinical Associate
Professor—OPHTHALMOLOGY (promotion ef-
fective 7-1-75)

Ryun Ho Kim, M.D., Clinical Assistant
Professor—RADIOLOGY (appointment effective
7-1-75)

William F. Krol, Ph.D., Associate Professor—
SOCIAL & PREVENTIVE MEDICINE (promotion ef-
fective 7-1-75)

Myron M. Levine, M.D., Assistant Professor—
MEDICINE (promotion effective 7-1-75)

Henry S. Lewis, Jr., M.S., Clinical Assistant
Professor—RADIOLOGY (appointment effective
7-1-75)

Chu-Shek Lo, Ph.D., Assistant Professor—
—PHYSIOLOGY (appointment effective 9-1-75)

Tae Hwan Oh, PH.D., Assistant Professor—
ANATOMY (appointment effective 6-1-75)

Warren David McNeely, M.D., Instructor—
RADIOLOGY (appointment effective 7-1-75)

Leon Reinstein, M.D., Assistant Professor—
REHABILITATION MEDICINE (appointment ef-
fective 7-1-75)

Norman B. Rosen, M.D., Assistant Professor—

REHABILITATION MEDICINE (promotion effec-
tive 7-1-75)

Edward F. Rusche, M.D., Associate Professor—
MEDICINE (promotion effective 7-1-75)

Richard Sarles, M.D., Associate Professor—
PSYCHIATRY (promotion effective 7-1-75)

Bernard R. Shochet, M.D., Clinical Associate
Professor—PSYCHIATRY (promotion effective
7-1-75)

Stanley S. Seigelman, M.D., Clinical Professor—
RADIOLOGY (appointment effective 7-1-75)

Harold C. Standiford, M.D., Associate
Professor—MEDICINE (promotion effective
7-1-75)

Richard M. Susel, M.D., Clinical Assistant
Professor—OPHTHALMOLOGY (promotion ef-
fective 7-1-75)

Ellen R. Wald, M.D., Assistant Professor—
MEDICINE (promotion effective 7-1-75)

William H. Wallop, M.D., Assistant Professor—
RADIOLOGY (appointment effective 7-1-75)

Charles I. Weiner, M.D., Clinical Assistant
Professor—RADIOLOGY (promotion effective
7-1-75)

James Q. Whitaker, M.D., Clinical Assistant
Professor—PATHOLOGY (appointment effective
4-1-75)

E.C.B. Hall-Craggs, Ph.D., Professor—ANATOMY
(appointment effective 8-1-75)

Lee J. Abbott, M.S., Associate—PATHOLOGY
(appointment effective 7-1-75)

Richard C. Arbogast, M.D., Clinical Instructor
—PSYCHIATRY AND FAMILY MEDICINE (joint
appointment effective 7-1-75)

Mary L. Brueck, B.S., Instructor—PATHOLOGY
(Medical Technology) (appointment effective
7-1-75)

Toa Goon Chaw, M.D., Instructor— ANES-
THESIOLOGY (appointment effective 7-1-75)

John K. Lee, M.D., Instructor—ANESTHESIOLOGY (appointment effective 7-1-75)

Susan R. Fassett, B.A., Instructor—SOCIAL AND PREVENTIVE MEDICINE (appointment effective 7-1-75)

Michael L. Jesudason, M.B.Ch.B., F.R.C.P. Associate—PATHOLOGY (appointment effective 7-1-75)

Gerald J. Prud'homme, M.A., Associate—SOCIAL AND PREVENTIVE MEDICINE (appointment effective 7-1-75)

Isaam E. Cheikh, M.D., Instructor—MEDICINE (appointment effective 7-1-75)

Marilyn J. Duncan, B.A., Associate—PATHOLOGY (appointment effective 7-1-75)

Daniel J. Freedenburg, Jr., M.D., Assistant Professor—PSYCHIATRY (promotion effective 7-1-75)

John S. Green, III, M.D., Assistant Professor—RADIOLOGY (appointment effective 6-1-75)

Norman W. Haines, Jr., M.D., Instructor—MEDICINE (appointment effective 7-1-75)

Muhammad M. Husain, M.D., Instructor—PATHOLOGY (appointment effective 7-1-75)

Elizabeth A. Knust, M.T., B.S., Instructor—PATHOLOGY (Medical Technology) (appointment effective 7-1-75)

Leon A. Levin, M.D., Clinical Instructor—PSYCHIATRY (appointment effective 7-1-75)

Verinder S. Nirankari, M.D., Instructor—OPHTHAMOLOGY (appointment effective 7-1-75)

Herbert S. Ormsbee, III, Ph.D., Assistant Professor—SURGERY (appointment effective 7-1-75)

Barry F. Rudnick, M.D., Clinical Instructor—PSYCHIATRY (appointment effective 7-1-75)

Florette Lee, M.D., Instructor—ANESTHESIOLOGY (Reinstatement effective 7-1-75)

Pavitra Tuladhar, M.D., Instructor—ANESTHESIOLOGY (M.I.E.M.) (appointment effective 7-1-75)

Dermot P. Byrnes, M.D., Clinical Associate—M.I.E.M. (appointment effective 8-1-75)

John W. Blotzer, M.D., Instructor—MEDICINE (appointment effective 7-1-75)

Terren M. Himelfarb, M.D., Instructor—SURGERY (appointment effective 7-1-75)

William Thomas James, B.S., Instructor—FAMILY MEDICINE (appointment effective 7-1-75)

Edward J. Kosnik, M.D., Instructor—SURGERY (appointment effective 7-1-75)

Ronald J. Taylor, M.D., Instructor—PSYCHIATRY (appointment effective 7-1-75)

Thomas B. Ducker, M.D., Professor and Head of Division of Neurosurgery in Department of SURGERY (appointment effective 8-1-75)

Jean M. Jackson, M.D., Assistant Professor—MEDICINE, resigned 6-30-75.

James G. Arnold, Jr., M.D., Professor—SURGERY, resigned 7-75.

William W. Magruder, M.D., Assistant Clinical Professor—PSYCHIATRY, resigned 7-1-75.

Herbert L. Moseley, JR., M.D. Associate—SOCIAL AND PREVENTIVE MEDICINE, deceased 7-75.

Ming Man, PH.D., Research Associate—BIOCHEMISTRY, resigned 7-26-75.

John A. Singer, M.D., Assistant Professor—SURGERY, resigned 6-30-75.

Zilton deA. Andrade, M.D., Professor—INTERNATIONAL MEDICINE, resigned 8-1-75.

Gerald T. Gilmore, M.D., Assistant Professor—RADIOLOGY, resigned 6-30-75.

Charles B. Payne, M.D., Assistant Professor—MEDICINE, resigned 8-30-75.



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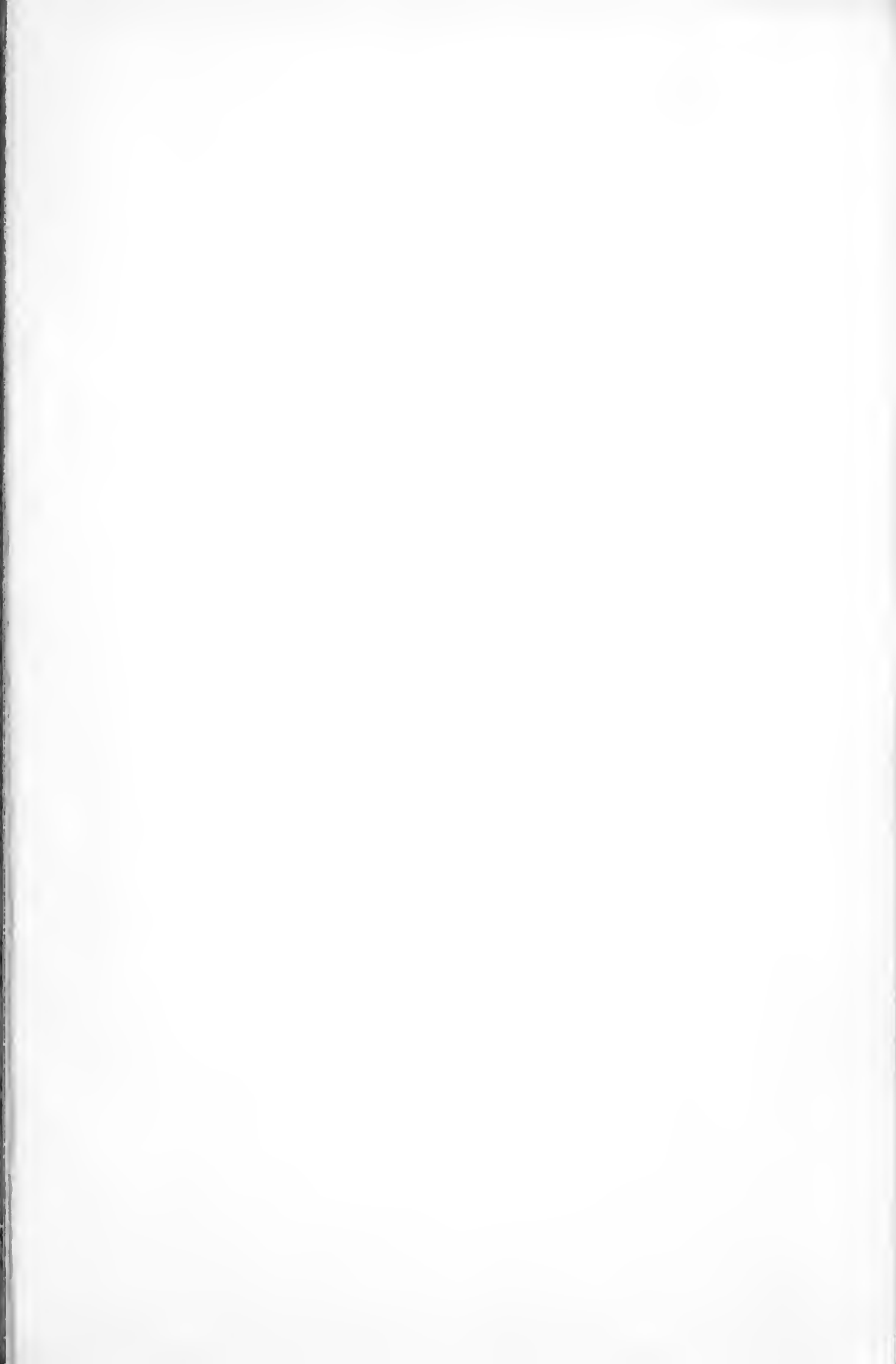
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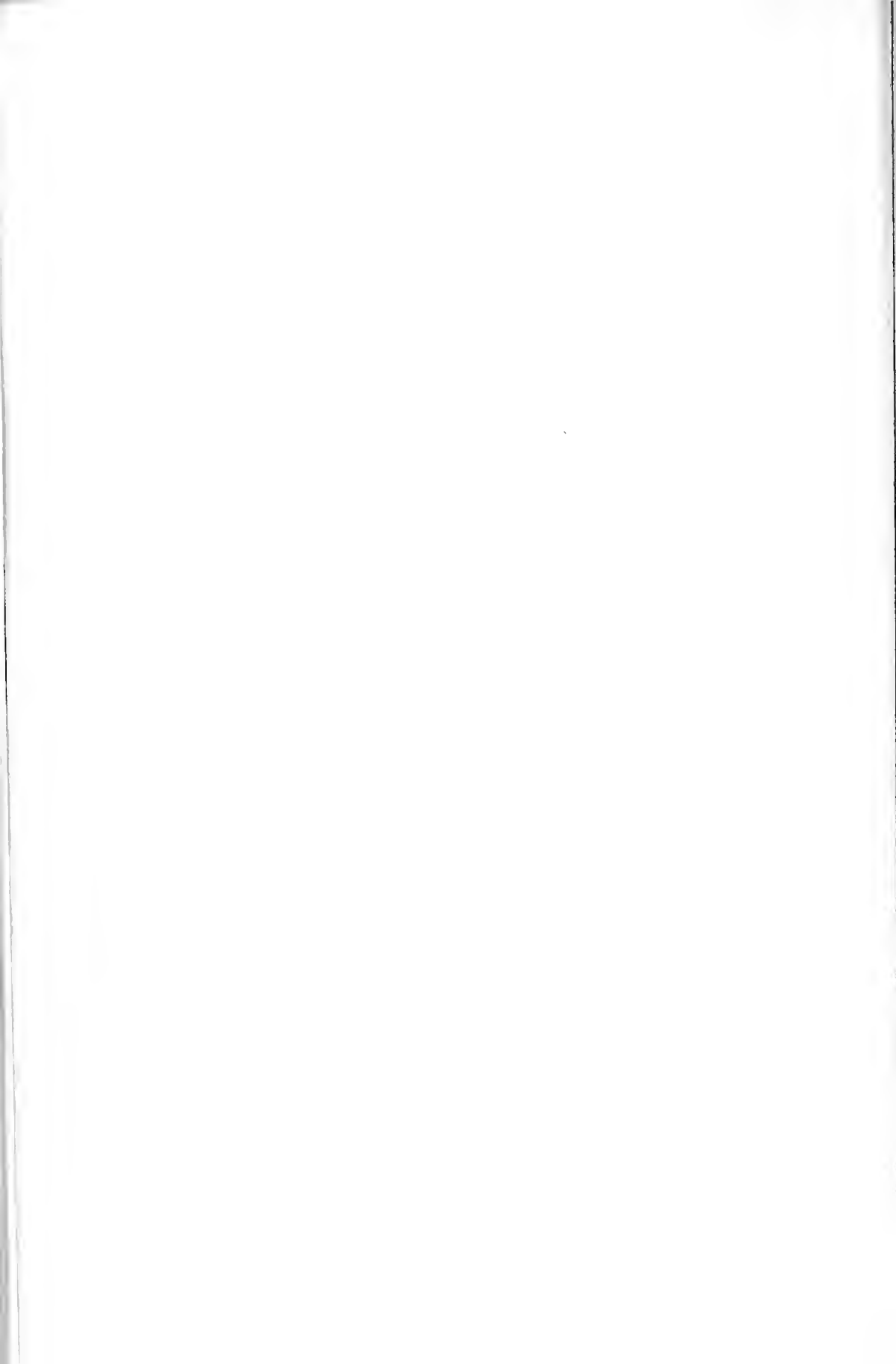
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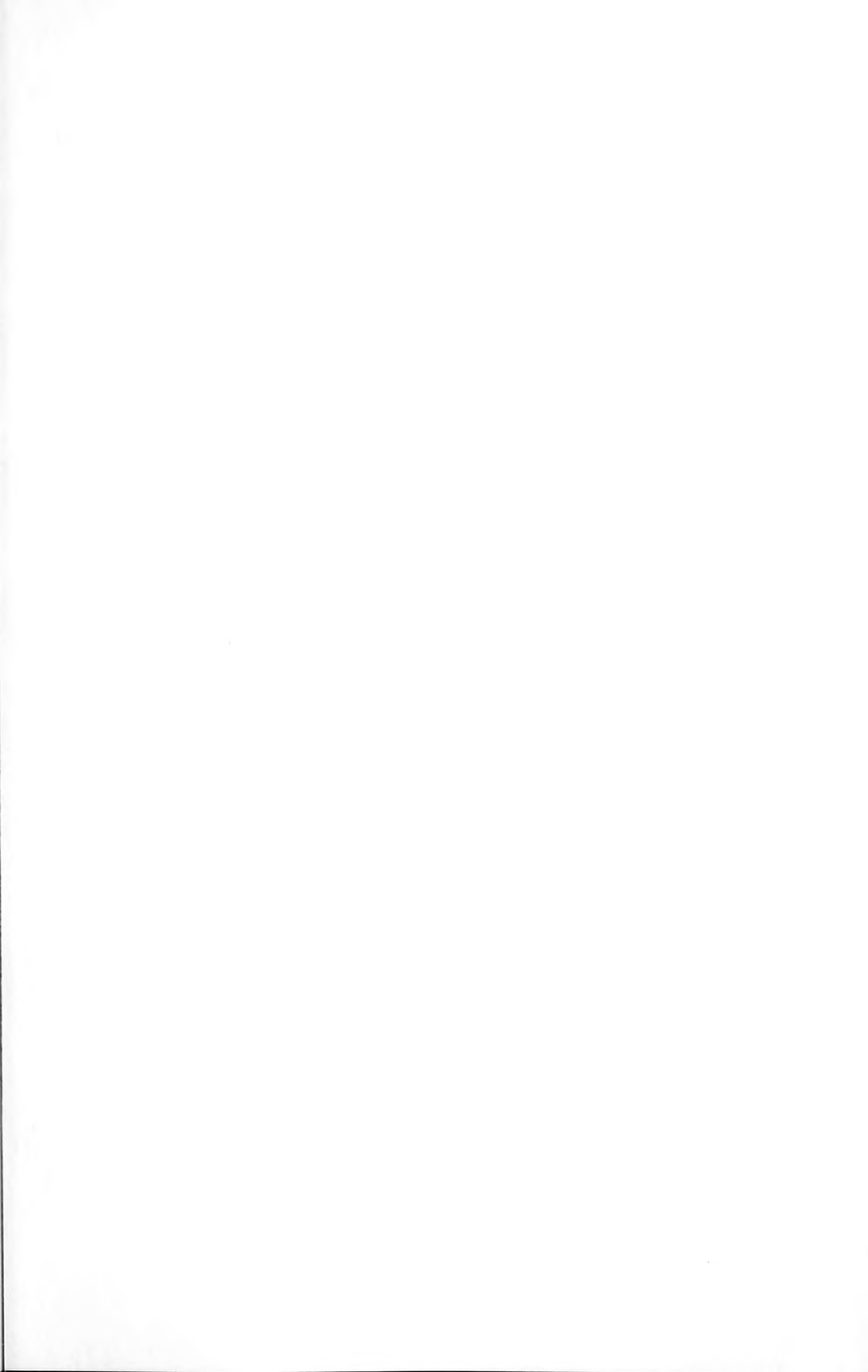
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